#### **DRAFT**

# SR 514 Design Traffic Technical Memorandum

This Design Traffic Technical Memorandum is prepared to provide the Florida Department of Transportation (FDOT) – District Five with design traffic volumes and traffic analysis for use in the SR 514 Project Development and Environmental (PD&E) Study. This technical memorandum includes the development of existing traffic volumes, evaluation of existing operating conditions, development of design traffic characteristics. In addition, this study entails the development of future traffic forecasts for the No Build and the Build Alternatives and evaluation of operating conditions of the corridor as appropriate during the service life of the proposed roadway project.

Financial Project ID: 430136-1 Roadway ID: 70180000

Prepared for:

▶ FDOT District 5

▶ Draft Submitted March 2015

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#### 1 Introduction

The Florida Department of Transportation (FDOT) District Five is conducting a Project Development and Environmental (PD&E) Study (Financial Project Number: 430136-1) on SR 514 from SR 507 (M.P. 3.060) to US 1/ SR 5 (M.P. 6.698) in Brevard County, Florida. FDOT requested to perform the Design Traffic Analysis to determine the impacts and assess the need for future capacity improvements on the SR 514 study corridor.

The Design Traffic Process for this study is divided into two broad phases. They are:

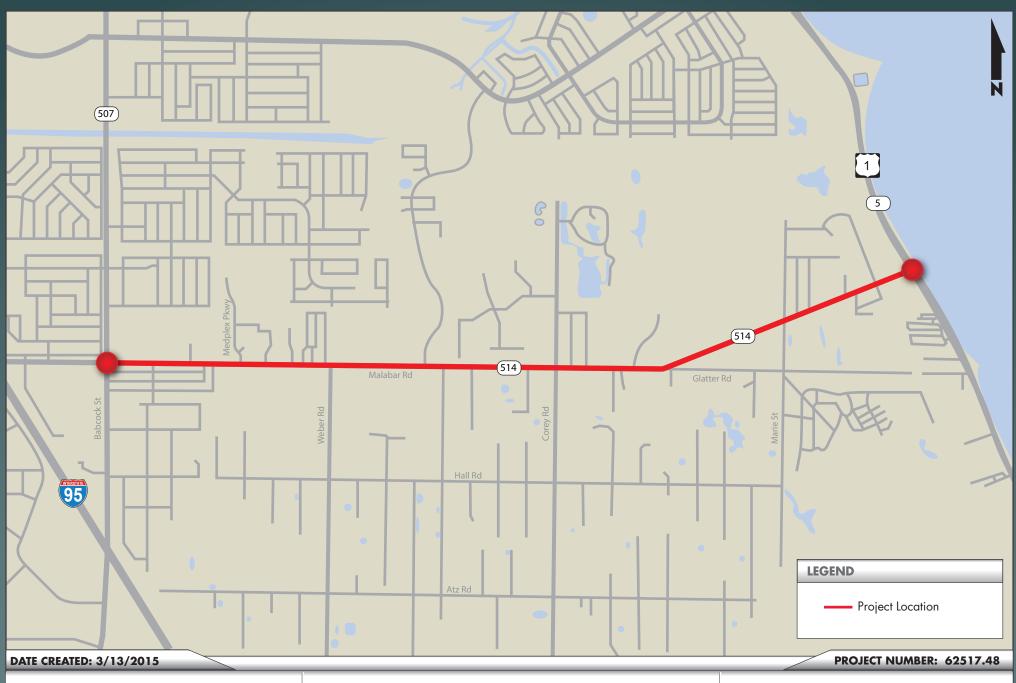
- Phase One This phase of the study entails the development of existing traffic volumes, design characteristics, evaluation of existing operating conditions and model validation for year 2015 traffic conditions. In addition, this phase of the study entails the development of the future traffic forecasts for the No Build and the Build Alternatives.
- Phase Two This phase of the study includes an evaluation of the characteristics and operating conditions of the corridor during the service life of the proposed roadway project.

The current document is prepared in support of the above-mentioned two phases of the Design Traffic Analysis. FDOT performed a Design Traffic Analysis for year 2011 conditions with opening year 2018, mid-design year 2028 and design year 2038 as future years for traffic projection and operations analysis. The study area map is shown in **Figure 1**.

The final Design Traffic Technical Memorandum (DTTM) that recommended the widening of the SR 514 study corridor (east of Babcock Street to US 1) from two to four lanes was finalized in January of 2013. In the later part of 2013, FDOT requested to conduct an HCS analysis to reevaluate the Build Alternative (four-lane section). Therefore, a reevaluation was done in July 2014 for the SR 514 segment between Weber Road and US 1 with a two-lane section and suggested that the initial four-lane recommendation be changed to the following:

- Drop the four-lane section (to a two-lane section) east of Corey Road
- Maintain the intersection geometry recommended in the Final DTTM (January 2013).

The DTTM updated assumes the build alternative lane configuration and lane geometry to be consistent with the July 2014 reevaluation study. FDOT has updated the schedule of the project opening year from 2018 to 2025, and design year from 2038 to 2045. This report provides a revised analyses with the latest traffic data collected for existing year 2015. However, the previously developed and validated travel demand model volumes was used in the current study for growth rate establishment for future traffic projections for no-build and build conditions.





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FIGURE 1

Project Location Map

#### 1.1 Description of Project

The State maintained SR 514 corridor is primarily an east/west facility, which in its entirety, extends from a western terminus at I-95 to an eastern terminus at US 1, in Brevard County. The PD&E Study for SR 514 from SR 507 to US 1 (Financial Project Number: 4301361) is identified in the current SCTPO's Transportation Improvement Program (TIP) (Amended December 11, 2014) under the fiscal year 2015-2019.

A need for roadway capacity improvement (widening to four lanes) is identified for SR 514 from SR 507 to US 1/SR 5 in the SCTPO 2035 Long Range Transportation Plan (LRTP) Report dated January 11, 2011. Copies of the SCTPO TIP and SCTPO 2035 LRTP cost feasible plan are provided in **Appendix A**. This study will evaluate SR 514 improvements as a means of providing additional capacity and reducing congestion along the corridor. It should be noted that since the intersection of SR 514 and SR 507 was evaluated in the previously completed Study - "SR 507 Design Traffic Technical Memorandum, prepared for SR 507 Final Engineering Design Study from SR 514 to South of Palm Bay Road Brevard County, Florida - Financial Project ID: 237650-6", the current report did not include this intersection.

#### 1.2 Objective

The objective of this Technical Memorandum is to provide the FDOT District Five with the Average Annual Daily Traffic (AADT), Peak Hour Volumes, intersection and roadway Level of Service (LOS) for the base year 2015. This report also involves the development of the design traffic characteristics including Standard K Factor, Design Hour Directional Demand (D<sub>30</sub>), and percentage of trucks for both the design hour and daily demand (T<sub>peak</sub>, T<sub>daily</sub>) for use in the operational analysis of future conditions.

#### 1.3 Methodology

The methodology used for the development of this report is illustrated in Figure 2.

#### Figure 2: SR 514 Design Traffic Technical Memorandum Methodology

•Collect available traffic count information from the FDOT's and County's historical traffic count records and from actual field count data. Review previous studies, traffic characteristics and other relevant data for the study corridor.

- Based on the data collection, use the collected year 2015 peak hour turning movement counts for performing intersection and roadway segments LOS analyses for the project corridor.
- •Evaluate the existing traffic volumes based on capacity to determine if the roadway is currently operating under constrained or unconstrained conditions.
- •Based on the data collection process, estimate the travel roadway characteristics of the corridor. These characteristics include Standard K factor, Directional Design Hour factor (D0), and Daily Truck factor (Tdaily).
- •Use the previously validated subarea model (validation year 2011) to establish model based growth rates for future years.
- •Develop future year traffic volume forecasts for the corridor based on trends analysis of historical traffic counts, and/or travel demand models (FSUTMS), previous studies for this project corrdior, and BEBR population projections
  - •Develop the design hour turning movement volumes for the opening year and design year for the No Build and Build alternatives by applying the design characteristics including Standard K and D to the future year AADTs using TURNS5 program
- Provide LOS analysis for the intersections and roadway segments along the applicable study corridor for the No Build and Build alternatives for the opening and design year design hour conditions
- Based on the level of service analysis, provide recommendations for improvements to accommodate the anticipated travel demand

## 2 Project Information

#### 2.1 Project Location, Limits and Field Inventory

#### 2.1.1 SR 514 from SR 507 to US 1

SR 514 serves both local and regional traffic; the existing roadway characteristics that are relevant to this study are shown in **Table 1.** The Straight Line Diagram (SLD) and the relevant Roadway Characteristics Inventory data (RCI) are provided in **Appendix B** of this report.

Table 1: Roadway Characteristics of SR 514 Corridor

Characteristic	Observation
Limits	SR 507 (M.P. 3.060) - US 1 (M.P. 6.698)
Location	SR 507 to West of Medplex Parkway – City of Palm Bay, Brevard County; West of Medplex Parkway to US 1 - Town of Malabar, Brevard County
FDOT Roadway ID	70180000
Roadway Maintaining Agency	FDOT
Functional Classification	Four Lane divided Urban Minor Arterial from M.P. 3.060 to M.P. 3.218  Two Lane Undivided Urban Minor Arterial from M.P. 3.218 to M.P. 6.698
Speed Limits	M.P. 3.060 - M.P. 3.850 : 45 MPH M.P. 3.850 - M.P. 5.974 : 55 MPH M.P. 5.974 - M.P. 6.332 : 45 MPH M.P. 6.332 - M.P. 6.698 : 30 MPH
Adopted LOS	FDOT Standard: "D"; Brevard County Standard: "D"; City of Palm Bay Standard: "E" and Town of Malabar Standard: "D"
Strategic Intermodal System Facility	No
Signalized Intersections from West to East	1) SR 507 (M.P. 3.060) 2) US 1 (M.P. 6.698)
Land Uses	Predominantly residential use along the entire study corridor. Strip commercial use near the intersection of SR 514 and SR 507. Palm Bay Hospital on the north side of SR 514 near Medplex Parkway.
Pavement Width	13 foot wide travel lanes from M.P. 3.060 – M.P. 3.218 12 foot wide travel lanes from M.P. 3.218 – M.P. 6.698
Sidewalks	5' sidewalk present on the north and south sides of SR 514 from M.P. 3.060 to M.P. 3.224.
Parallel Parking	None
Bike Lanes	Undesignated bike lanes from M.P. 3.217 to M.P. 4.241
Hurricane Evacuation	SR 514 within the study limits is a hurricane evacuation route.

#### 2.2 Existing Transit Service

Space Coast Area Transit is the Brevard County's Public Transit System. It is one of Brevard County's important economic engines helping in getting employees to work and transport tourists on SR AIA, getting students to college, reducing medical costs through Paratransit service, and operating one of the largest commuter vanpool programs in the nation. Its fixed route service operates throughout the county to provide public transportation to Brevard's residents and visitors. Fixed routes operate on a set schedule at designated stops, providing extensive coverage throughout the cities within Brevard County as well as unincorporated areas.

Currently fixed transit routes do not operate on SR 514 within the project limits between SR 507 and US 1. Bus Route 23 has a stop on SR 514 just east of Babcock Street. A need for a fixed transit route was identified in the Space Coast Transportation Planning Organization's 2035 LRTP dated January 11, 2011. A copy of the year 2035 Transit Needs Plan is available in **Appendix A** of this report.

## 3 Existing Conditions

This section describes the analysis of traffic flow operating conditions for the base year 2015 at the major intersections and roadway segments along the project corridor.

In analyzing the year 2015 operating conditions of the intersections and roadway segments, traffic counts collected in the field during February of 2015 and September 2014 were used along with the existing roadway and intersection geometry. The intersection LOS analysis was performed for year 2015 conditions using the signal timing data provided by the Brevard County. The existing conditions intersection and roadway LOS analysis was performed using the Synchro Software (version 8.0). The following sub-sections describe the overall process.

#### 3.1 Traffic Count Information

**Figure 3** provides the location of traffic counts and type of traffic count data collected for the study. The data collected included:

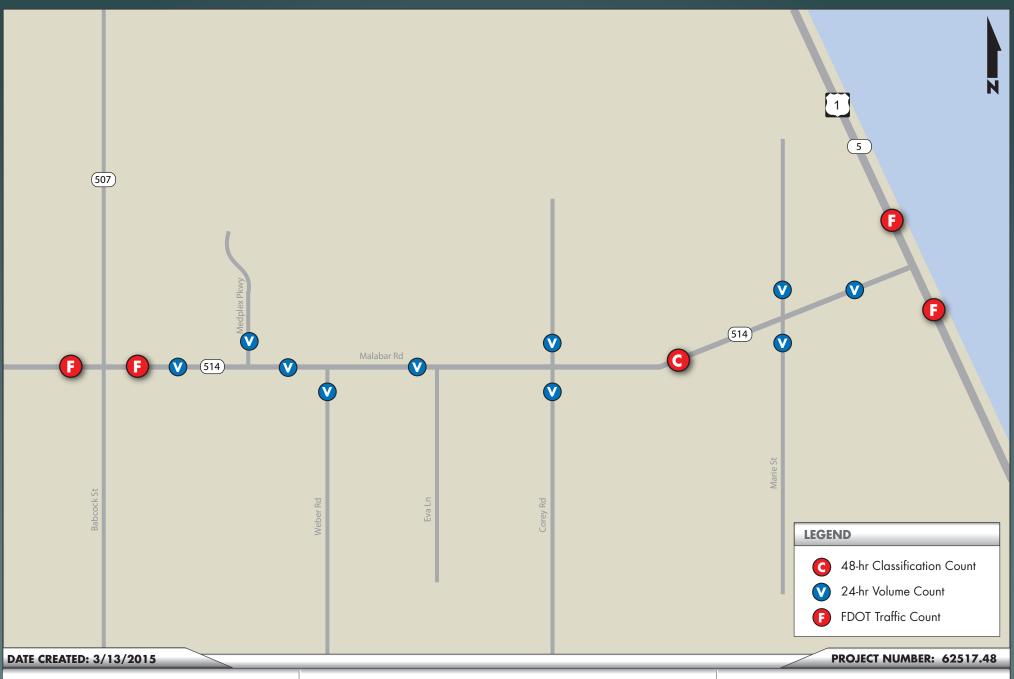
- 24-hour bi-directional volume counts (10 locations)
- 48-hour classification count (1 location)
- 24-hour bi-directional volume counts (4 locations) obtained from FDOT Traffic
   Information
- 4-hour intersection turning movement counts for a.m. and p.m. peak hours (5 intersections)

The weekday turning movement counts were collected for the intersections between the peak hours of 7:00-9:00 a.m. and 4:00-6:00 p.m. The traffic count data (24-Hour volume and 48-hohur classification) collected were seasonally adjusted utilizing the FDOT axle and seasonal adjustment factors for Brevard County to provide 2015 annual average conditions.

As part of the traffic count program for this project, one location on SR 514 was utilized in this study as vehicle classification count. Vehicle composition for the classification count was broken into three primary vehicle types:

Passenger Vehicles - Motorcycles, Cars, Vans, and Pickups;

- Medium Truck Buses and 2 axle Single Unit Trucks;
- Heavy Trucks (3 or 4 axles) Single Unit Trucks, 2 axle Tractors (with 1 or 2 axle Trailer),
   3 axle Trailers (2 or 3 axle Trailers), and (5, 6 and 7 axle) Multi-trailers.





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FIGURE 3 Traffic Count Locations by Type Based on these categories, percentages for overall trucks (medium and heavy) were determined for peak and daily traffic conditions. Copies of all traffic count data are provided in **Appendix C**. Latest available FDOT axle and seasonal adjustment factors for Brevard County are provided in **Appendix D**.

#### 3.2 Existing Geometry

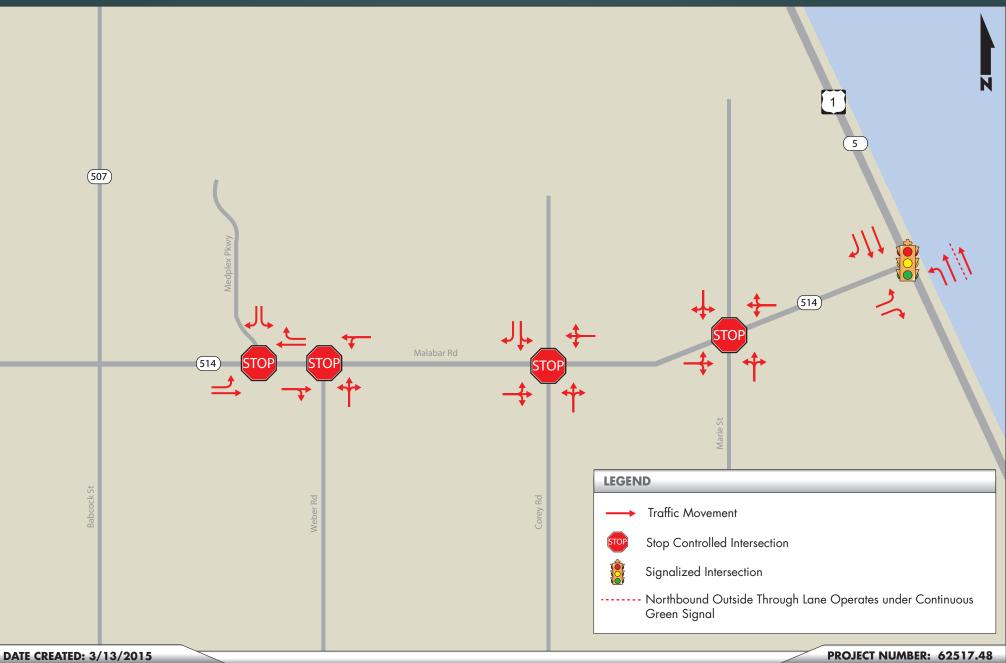
**Figure 4** provides the year 2015 intersection geometry for all of the intersections evaluated in this study. The year 2015 intersection geometry information was obtained and verified based on field visits and aerial photographs. The following intersections were evaluated as part of the existing conditions in this study.

#### 3.2.1 SR 514 Corridor

The following intersections are included within the study limits:

- SR 514 @ Medplex Parkway (unsignalized)
- SR 514 @ Weber Road (unsignalized)
- SR 514 @ Corey Road (unsignalized)
- SR 514 @ Marie Street (unsiignalized)
- SR 514 @ US 1 (signalized)

The existing geometry will be considered as one of the factors in determining potential intersection improvements to accommodate the travel demand.





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**FIGURE 4** Existing Year 2015 Geometry

#### 3.3 Existing Traffic Volumes

Traffic count information as collected was used to develop existing traffic characteristics for the project corridors and the intersecting side streets. The truck factors for the peak condition based on the data collected was used in the existing intersection analyses.

Based on the 24-Hour volume counts and 48-Hour classification counts, peak hour traffic flow (K measured) and, directional split (D measured) for the roadways in the study area were derived. The adjusted AADT volumes for the individual roadway segments are provided in **Table 2**. **Figure 5** provides the existing AADT's for the project corridor and the side streets.

**Table 2: Existing Year 2015 Traffic Volumes** 

	Date of	Type of			Mea	sured Char	acteristics				Axle	Seasonal	Adjusted
Roadway / Segment	Count	Count	ADT	Peak Hr.	NB/EB	SB/WB	Peak Time	"K"	"D"	"T <sub>Daily</sub> "	Adj. <sup>2</sup>	Adj. <sup>1</sup>	AADT <sup>3</sup>
Mainline Characteristics (SR	514)												
SR 514													
West of Medplex Parkway	2/3/2015	24-Hour Volume	19,895	1,879	768	1,111	4:30-5:30	9.4%	59.1%	-	0.96	0.96	18,000
West of Weber Road	2/3/2015	24-Hour Volume	17,795	1,632	684	948	4:30-5:30	9.2%	58.1%	-	0.96	0.96	16,000
East of Weber Road	2/3/2015	24-Hour Volume	15,861	1,484	503	981	5:00-6:00	9.4%	66.1%	-	0.96	0.96	15,000
West of US-1	2/3/2015	24-Hour Volume	14,069	1,356	473	883	4:30-5:30	9.6%	65.1%	-	0.96	0.96	13,000
West of Marie Street	9/23/2014	48-Hour Classification	11,832	1,168	789	379	7:30-8:30	9.9%	67.5%	5.2%	1.00	1.06	13,000
East of SR 507	8/13/2013	FDOT Classification	-	-	-	-	-	9.0%	54.2%	6.7%	1.00	1.04	19,000 4
West of SR 507	4/3/2013	FDOT Classification	-	-	-	-	-	9.0%	54.2%	7.8%	1.00	0.93	37,000 <sup>4</sup>
Side Street Characteristics													
US 1/SR 5													
North of SR 514	9/10/2013	FDOT Classification	-	-	-	-	-	9.0%	54.2%	4.9%	0.98	1.06	20,000 4
South of SR 514	5/10/2013	FDOT Classification	-	-	-	-	-	9.0%	53.1%	5.0%	0.97	1.00	14,000 4
Corey Road													
North of SR 514	9/23/2014	24-Hour Volume	634	61	30	31	6:15-7:15 PM	9.6%	50.8%	-	0.98	1.06	660
South of SR 514	9/23/2014	24-Hour Volume	2,105	195	146	49	7:15-8:15	9.3%	74.9%	-	0.98	1.06	2,200
Weber Road													
South of SR 514	9/23/2014	24-Hour Volume	2,438	217	133	84	7:15-8:15	8.9%	61.3%	-	0.98	1.06	2,500
Medplex Parkway													
North of SR 514	2/3/2015	24-Hour Volume	2,679	229	114	115	1:15-2:15	8.5%	50.2%	-	0.99	0.96	2,500
Marie St	·	·											· <u> </u>
North of SR 514	2/12/2015	24-Hour Volume	231	31	13	18	9:45-10:45	13.4%	58.1%	-	0.99	0.95	220
South of SR 514	2/12/2015	24-Hour Volume	608	53	20	33	3:45-4:45	8.7%	62.3%	-	0.99	0.95	570

#### Notes:

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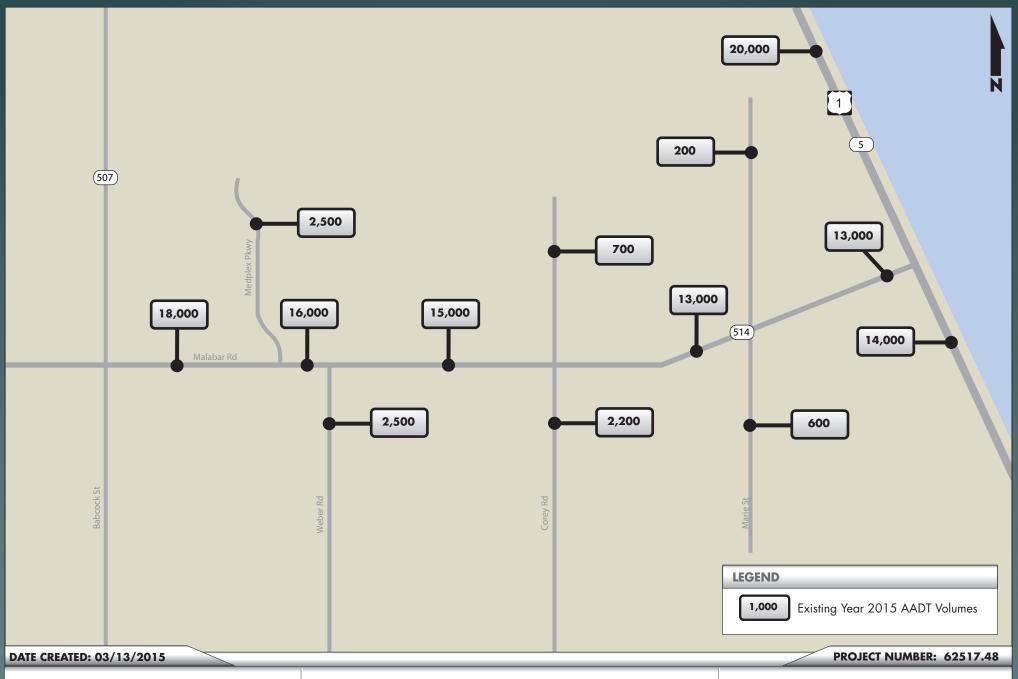
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<sup>1.</sup> Most Recent Seasonal Adjustment factors were obtained from FDOT 2013 Traffic Count Information

<sup>2.</sup> Most Recent Axle Adjustment factors were obtained from FDOT 2013 Traffic Count Information

<sup>3.</sup> Adjusted AADT = Measured ADT \* Axle Adjustment \* Seasonal Adjustment

<sup>4.</sup> AADT obtained from FDOT Traffic Information DVD 2013





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FIGURE 5

Existing Year 2015 AADT Volumes

#### 3.4 Year 2015 Turning Movement Counts

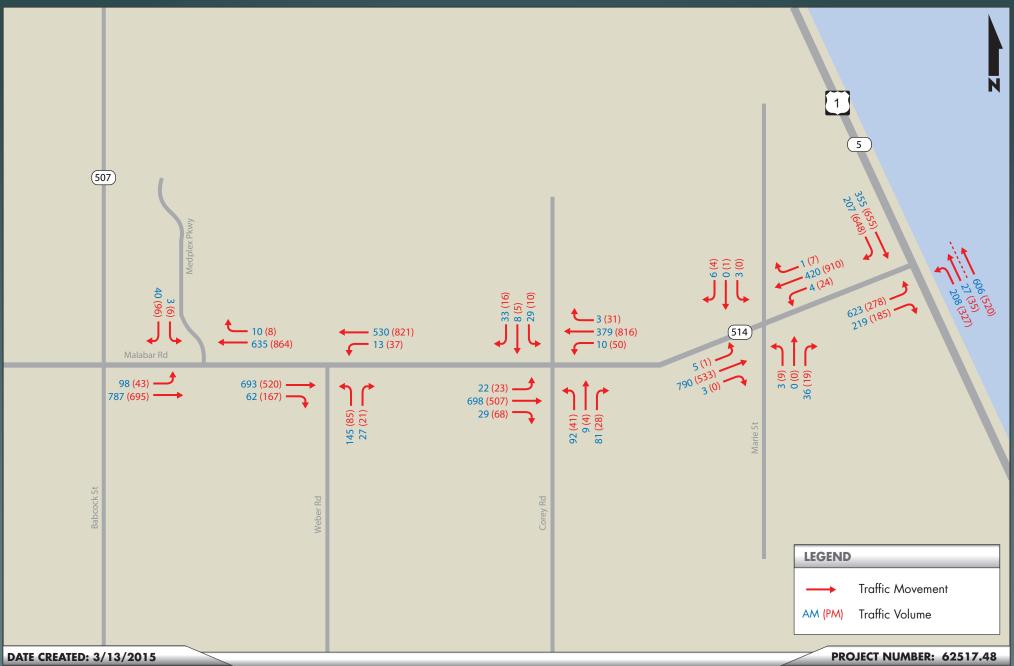
Turning movement count (TMC) information for the intersection of SR 514 at Corey Road and SR 514 at Weber Road were obtained from the SR 514 Turn Lane Addition (Financial Project ID: 413761), dated December 2014. TMCs at the other three intersections for the a.m. and p.m. peak hour conditions were collected for this study. As the seasonal factor values for the intersection turning movement volumes were less than 1.00, the TMC were not adjusted for seasonal variations for conservative analysis. The year 2015 a.m. and p.m. peak hour turning movement volumes for the study intersections are depicted in **Figure 6**. The year 2015 a.m. and p.m. peak hour turning movement volumes collected at the study intersections are provided in **Appendix C**.

The intersection of SR 514 and US 1 is "Florida T-intersection" also called as "Continuous Green T-Intersection", where the outside northbound through lane operates as a free movement (has a continuous green phase.) The northbound through movement traffic using the outside through lane (operating under Continuous Green phase) and inside through lane (controlled by traffic signal) are collected separately. The northbound right turns traffic in the turning movement sheet for the intersection of SR 514 and US 1 provided in **Appendix C** represents the northbound through movement traffic using the outside through lane.

#### 3.5 Year 2015 LOS Analysis

Levels of service for the study corridors were determined using Synchro software version 8.0. and the latest (2012) FDOT's Generalized Service Volume Tables. Specific analysis techniques utilized in the study include the signalized, unsignalized intersections and arterial analyses. The outputs from Synchro were presented as results for the intersection LOS analyses.

According to Exhibit 18-4 (page 18-6) of Highway Capacity Manual (HCM 2010), an average control delay per vehicle from 55 seconds up to 80 seconds is considered LOS E condition and beyond 80 seconds is considered LOS F condition at a signalized intersection.





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FIGURE 6 Existing Year 2015 Turning Movement Volumes

#### 3.5.1 Year 2015 Intersection LOS Analysis

The year 2015 a.m. and p.m. peak hour turning movement volumes along with the year 2015 intersection geometry were used in the intersection LOS analysis. The signal timing data provided by the Brevard County were used in the intersection LOS analysis for signalized intersections.

A summary of LOS analysis for the study intersections is included in **Table 3**. As shown in **Table 3**, during the year 2015 a.m. and p.m. peak hour conditions, the minor approaches at the unsignalized intersections at Weber Road and Corey Road at SR 514 were found to operate below LOS D. The base year 2015 a.m. and p.m. peak hour Synchro intersection analysis output along with the signal timing data are included in **Appendix E**.

**Table 3: Existing Intersection LOS Summary** 

Study Intersection	Traffic	Adopted	AM De	sign Hour	PM Des	sign Hour
Study Intersection	Control	LOS	Delay (sec)	LOS	Delay (sec)	LOS
Medplex Parkway	Stop	D	9.5/22.7	A/C	10.1/21.4	B/C
Weber Road	Stop	D	9.6/ <mark>219.4</mark>	A/F	9.2/99.6	A/F
Corey Road	Stop	D	9.4/148.4	A/F	9.8/86.5	A/F
Marie Street	Stop	D	10.2/19.6	B/C	10.0/26.4	A/D
US 1	Signal	D	21.1	С	13.7	В

#### **Notes:**

- 1. Synchro based outputs are presented in this table for both the signalized and unsignalized intersections
- 2. Overall intersection delay and LOS results are reported for signalized intersections
- 3. In case of unsignalized intersections, major street/minor street worst case results (delay and LOS) are reported.
- 4. Result shown in red color exceeds the adopted LOS standard

#### 3.5.2 Year 2015 Arterial LOS Analysis

The roadway segments level of service analysis was performed for the year 2015 a.m. and p.m. peak hour conditions using FDOT's generalized planning analysis. The roadway peak-hour peak-direction volumes obtained from intersection turning movement count data was compared with service volumes provided in the FDOT's generalized LOS tables to determine the existing operating conditions.

Table 4: Existing Year 2015 Arterial LOS Analysis Summary

Roadway	#. Of Lanes	FDOT LOS Standard	Maximum Service Volume	Existing Pk. Hr. Pk. Dir. Volume	Existing LOS			
SR 514	SR 514							
Medplex Parkway to Weber Road	2	D	880	873	D			
Weber Road to Corey Road	2	D	880	904	E			
Corey Road to Marie Street	2	D	880	836	D			
Marie Street to US 1	2	D	880	814	С			

As shown in **Table 4**, SR 514 between Medplex Parkway and Marie Street is currently operating at LOS D, with the exception of the segment between Weber Road and Corey Road where it does not meet LOS D criteria. Between Marie Street and US 1, SR 514 is currently operating at LOS C. A copy of the FDOT generalized service volume table for urbanized areas is provided in the **Appendix F**.

## 4 Development of Design Characteristics

The design traffic characteristics established in this section will be used in developing design hour volumes (DHV's) for the intersections and directional design hour volumes (DDHV's) for the roadway segments for the future conditions. These characteristics are determined based on the procedures outlined in the FDOT's Design Traffic Forecasting Handbook, 2014.

#### 4.1 Standard K Factor

Based on the recent directions from the FDOT District Office, a Standard K Factor of 9.0% for urban areas was used for the study corridors including SR 514, Medplex Parkway, Weber Road, Corey Road, Marie Street and US 1/SR 5.

#### 4.2 D Factor

The D factor represents the directional factor occurring in the traffic flow during the highest hour. In determining this factor for SR 514 and the side streets, statewide and national guidelines were compared to the field collected traffic counts and traffic information contained in the latest available Florida Traffic Information (FTI) DVD.

The measured D for the study area roadways including the peak directions are shown in **Table 2.** The average of the measured D factors for SR 514 corridor within the study limits is 60.6%. The measured D factors for the side streets are well within the FDOT recommended range of D values, with the exception of south of Corey Road (74.9%).

**Table 5** illustrates the historical D factors from four FDOT count stations along SR 514. The factors were obtained for five years from year 2009 to year 2013. The average, minimum and maximum D factors over the five years for SR 514 corridor are 55.83%, 53.6% and 61.0%, respectively.

**Table 6** provides the current recommended range of D values from the FDOT Project Traffic Forecasting Handbook (2014) and the Highway Capacity Manual for an urban arterial.

Table 5: Historical FTI Data - D Values

Year	Station 700427	Station 700379	Station 700127	Station 701001
2009	61.02%	61.02%	61.02%	61.02%
2010	56.02%	56.02%	56.02%	56.02%
2011	54.30%	54.30%	54.30%	54.30%
2012	53.60%	53.60%	53.60%	53.60%
2013	54.20%	54.20%	54.20%	54.20%
Average	55.83%	55.83%	55.83%	55.83%
Minimum	53.6%	53.6%	53.6%	53.6%
Maximum	61.02%	61.02%	61.02%	61.02%

Table 6: Recommended Range of D Values

Area & Highway	Values	Source			
Type	varues	FDOT <sup>1</sup>	HCM <sup>2</sup>		
	Low	50.8%	52.0%		
Urban Arterial	Average	57.9%	54.5%		
	High	67.1%	57.0%		

#### Notes.

1) Source: FDOT Project Traffic Forecasting Handbook, January 2014, Figure 2.9

2) Source: HCM 2010

#### 4.2.1 SR 514 Corridor

The average measured D from the 2014 traffic counts and historical D factors is 60.0%. Therefore, being conservative without overestimating future design traffic volumes, a D factor of 60% (average of historical and measured values) is recommended for the SR 514 corridor.

#### 4.2.2 Side Streets

For purposes of this study, the measured D values from the 2015 traffic counts will be used for the side street as recommended D factors. However, the recommended D factors will be restricted to the FDOT recommended high D value for an urban arterial. For US 1 corridor, a D-factor of 54% is recommended as identified in the reevaluation study conducted in July 2014.

#### 4.3 T<sub>daily</sub> & T<sub>peak</sub> Factors

The daily truck factor,  $T_{daily}$  represents the percentage composition of medium sized and heavy trucks occurring in the traffic stream for a 24-hour period. The peak hour truck factor,  $T_{peak}$ , is the percentage of truck traffic during the peak hour and is recommended as one-half of the  $T_{daily}$  factor in the Project Traffic Forecasting Handbook.

The year 2015 measured  $T_{daily}$  factors for the study area roadways are shown in **Table 2.**  $T_{daily}$  factor of 5.2% was measured for the SR 514 corridor.

**Table 7** contains the historical  $T_{daily}$  factors from the FTI DVD for the five years from 2009 to 2013. The average, minimum and maximum  $T_{daily}$  factors over the five years for SR 514 corridor are shown in the table for five stations.

Table 7: Historical FTI Data - T<sub>daily</sub> Values

Year	Station 700427	Station 700379	Station 700127	Station 701001
2009	7.80%	5.60%	5.60%	6.70%
2010	7.80%	5.40%	5.40%	6.70%
2011	4.90%	5.40%	5.40%	5.80%
2012	7.80%	7.30%	7.30%	6.70%
2013	7.80%	6.70%	6.70%	5.60%
Average	7.22%	6.08%	6.08%	6.30%
Minimum	4.90%	5.40%	5.40%	5.60%
Maximum	7.80%	7.30%	7.30%	6.70%

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#### 4.3.1 SR 514 Corridor

The average measured  $T_{daily}$  from the 2015 traffic counts and historical  $T_{daily}$  factors is 7%. A  $T_{daily}$  ( $T_{peak}$ ) factor of 7.0% (3.5%) is recommended for the SR 514 corridor, based on the existing count information.

#### 4.3.2 Side Streets

For the purposes of this study, the measured truck factor values from the 2015 traffic counts will be used for all the side streets. For US 1, since there was no count performed during this study, the previously recommended  $T_{daily}$  ( $T_{peak}$ ) factors of 9.5% (7.2%) is recommended.

#### 4.4 Recommended Design Traffic Characteristics

Based on the afore-mentioned discussions, the following **Table 8** provides a summary of the recommended design traffic characteristics for this study.

**Table 8: Recommended Design Traffic Characteristics** 

Roadway / Segment	Recommended Design Characteristics							
	Standard "K"	"D"	"T <sub>daily</sub> "	"T <sub>peak</sub> "				
	Factor	Factor	Factor	Factor				
Mainline Characteristics								
SR 514	9.0%	60.0%	7.0%	3.5%				
<b>Side Street Characteristics</b>								
US 1	9.0%	54.0%	-	7.0%				
Weber Road	9.0%	61.0%	-	Same as existing*				
Corey Road	9.0%	63.0%	-	Same as existing*				
Medplex Parkway	9.0%	66.0%	-	Same as existing*				
Marie Street	9.0%	60.0%	-	Same as existing*				

Note: Truck factors obtained from Year 2015 TMC will be used for future conditions

## 5 Development of Future Traffic Forecasts

The development of traffic projections for the study corridor requires the examination of historical growth, proposed development levels within the corridor vicinity, and a basic understanding of local traffic circulation patterns and travel characteristics of the corridor.

The travel demand model applied for this study was based on the latest Central Florida Regional Planning Model, Version 5.0 (CFRPM V5.0). This model was validated for the year 2011 in the previous version of the study in 2012, and was used for the July 2014 update. The current update of this DTTM utilizes the previously validated model, and therefore no validation of the model was performed as part of this update. The model based growth rate was used in conjunction with the previously recommended growth rates and the population growth rate projections by Bureau of Economic and Business Research (BEBR) to forecast the future no-build and build conditions traffic volumes.

#### 5.1 Design Period

Based on the latest information provided by District Five for this DTTM update, the following design periods were used to provide the future traffic forecasts, conduct roadway and intersection operation analyses for the study corridor.

- Opening Year 2025
- Design Year 2045

#### 5.2 Programmed and Planned Improvements

#### 5.2.1 Programmed Improvements

The following programmed improvements are scheduled within the study area based on the latest Space Coast TPO TIP (FY 2015-2019).

 Final Engineering Study Phase for SR 507 from Malabar Road to just south of Palm Bay Road (Financial Project ID 237650-6)  Preliminary Engineering and PD&E Study Phases for SR 514 between Babcock Street to US 1 (Financial Project ID 430136-1)

#### **5.2.2 Planned Improvements**

The following cost feasible planned improvements are included in the 2035 Space Coast LRTP near the study area.

- Babcock Street from Malabar Rd to New Palm Bay Parkway Interchange: Widen Road (2 to 4 Lanes); Year: 2026 2030
- Malabar Road from Babcock Street to US 1: Widen Road (2 to 4 Lanes); Year: 2026 2030
- Malabar Road from Minton Road to St. Johns Heritage Parkway: Widen Road (2 to 4 Lanes); Year: 2031 - 2035
- Babcock Street from US 192 to Malabar Road: Multimodal Emphasis with Intelligent Transportation System (ITS)
- US 1 from RJ Conlan to Malabar Road: Multimodal Emphasis (with ITS)
- Babcock Street from Malabar Rd to Foundation Park: Widen Road (2 to 4 Lanes); Year
   2026 2030

#### 5.3 Future Travel Demand

The development of traffic forecasts for study corridors is not complete without a review of the historical traffic growth, population estimates along the corridor and a review of the future year model forecasts. Due to the specific conditions associated with any roadway, it is necessary to utilize the various methods in projecting future traffic forecasts (such as trends analysis, population estimates, Travel Demand Models and previous studies) for comparison purposes. The following sections discuss the various methodologies used in developing future travel demand in the study area.

#### 5.3.1 Historical Traffic Growth

Based on the historic count information obtained from the FDOT, trends analyses were performed for the following FDOT count stations.

SR 514, West of SR 507 (Site 700427)

- SR 514, East of SR 507 (Site 700379)
- SR 514, East of Corey Road (Site 700127)
- SR 514, West of US 1 (Site 701001)

These count stations, provided historic counts ranging from 2002 to 2013. Based on this historical data, future growth trends were established by a least square linear regression of the historic counts as shown in **Table 9**. The historical trends analysis resulted in negative growth rates for all but the segments for SR 514 except SR 514, East of SR 507. The Trends analysis for SR 514, East of SR 507 resulted in an annual growth rate of 1.02% with an R-squared value of 20.35%, less than the recommended value of 75%. Therefore, the historical growths produced by trends analyses were not used in this study. These trend analysis sheets are provided in **Appendix G**.

**Table 9: Trends Analysis** 

Roadway Segment/Station	$\mathbb{R}^2$	Growth
SR 514, West of SR 507 (Site 700427)	70.42%	-1.77%
SR 514, East of SR 507 (Site 700379)	20.35%	1.02%
SR 514, East of Corey Road (Site 700127)	59.85%	-4.42%
SR 514, West of US 1 (Site 701001)	75%	-4.18%

#### **5.3.2 Brevard County Population Projections**

In addition to the Trends Analyses, population projection obtained from the BEBR published by the University of Florida were used for comparison purposes. **Table 10** shows the year 2013 population data and the high and medium population estimates for the Year 2040 along with the corresponding growth rate. Based on **Table 10**, the high and medium population estimates obtained from BEBR reported an annual growth rate of 1.83% and 0.87% per year, respectively. The BEBR population projection data are provided in **Appendix H**.

**Table 10: Population Analysis - BEBR Estimates** 

Projection Type	2013	2040	Annual Growth Rate
Brevard - Medium Projection	548,424	677,500	0.87%
Brevard - High Projection	548,424	819,700	1.83%

#### 5.3.3 Travel Demand Model

The CFRPM model based traffic projections for the No Build and Build Alternatives were assessed for their reasonableness. The model AADTs shown in the **Table 11** for both No Build and Build scenarios were obtained by multiplying the Model PSWADT with the 2011 MOCF value of 0.91.

For the No Build scenario (**Table 11**), annual average growth rate of 2.13% per year between the base year 2011 and the model year 2035 was exhibited along SR 514 corridor. Simple annual growth rates of 3.8%, 3.0%, 13% and 0.15% between the base year 2011 and model year 2035 were exhibited along the US 1 north of SR 514, US 1 south of SR 514, Weber Road and Corey Road, respectively.

Based on **Table 11**, under the Build scenario, annual average growth rate of 4.03% per year between the base year 2011 and the model year 2035 was exhibited along SR 514 corridor. Simple annual growth rates of 3.93%, 2.88%, 10.97% and 0.05% between the base year 2011 and model year 2035 were exhibited along the US 1 north of SR 514, US 1 south of SR 514, Weber Road and Corey Road, respectively. The model plots for the No Build and Build Alternatives were provided in **Appendix I** of this report.

#### 5.3.4 Previous Studies

For comparison purposes, recommended growth rates from the "For SR 514 Project Development and Environmental Study From Babcock Street (SR 507) to US 1, dated July 2014 Update" prepared by GMB were also considered. As shown in **Table 11**, the previous study recommended 2.45% growth between Babcock Street to Weber Road and 3.2% growth between Corey Road to US 1

under the Build Alternative. The existing and projected AADT volumes for the Build conditions along SR 514 from the previous study is provided in **Appendix J** of this report.

**Table 11: Comparison of Growth Rates** 

Dandurme / Sammant	CFRPM Base Year (2011)	CFRPM Horizon Year (2035) AADT		Previous Study <sup>1</sup>	Previous Study <sup>1</sup>	BEBR Population Growth Rate		
Roadway / Segment	AADT	No Build Scenario	Growth Rate (Linear)	Build Scenario	Growth Rate (Linear)	NB Growth Rate (Linear)	Build Growth Rate (Linear)	(Medium Projection)
		N	lainline Chara	cteristics				
SR 514								
West of Babcock Street	-	50,432	-	52,023	-			
Babcock Street to Weber Road	16,117	19,825	0.96%	27,138	2.85%	1.8%	2.5%	
Weber Road to Corey Road	12,290	19,356	2.40%	24,902	4.28%	-	-	
Corey Road to US-1	10,940	18,874	3.02%	24,005	4.98%	1.8%	3.2%	
Average			2.13%		4.03%			
		Cross Stree	t Characteristic	cs				0.87%
Babock Street North of SR 514	33,625	59,120	3.16%	58,968	3.14%	-	-	
Babock Street South of SR 514	17,422	37,065	4.70%	37,566	4.82%	-	-	
Weber Road	1,790	7,376	13.00%	6,503	10.97%	9.0%	9.0%	
Corey Road S of SR 514	3,878	4,020	0.15%	3,928	0.05%	4.3%	4.3%	
US-1 N of SR 514	21,172	40,461	3.80%	41,152	3.93%	5.40%	5.40%	
US-1 S of SR 514	20,106	34,603	3.00%	34,012	2.88%	5.40%	5.40%	

Notes:

<sup>1.</sup> Previous Study refers to the Design Traffic Technical Memorandum "SR 514 PD&E Study from SR 507 (Babcock Street) to US 1 dated July 2014" prepared by GMB. These are the recommended growth rates from the previous study.

# 5.4 Recommended Growth Rates

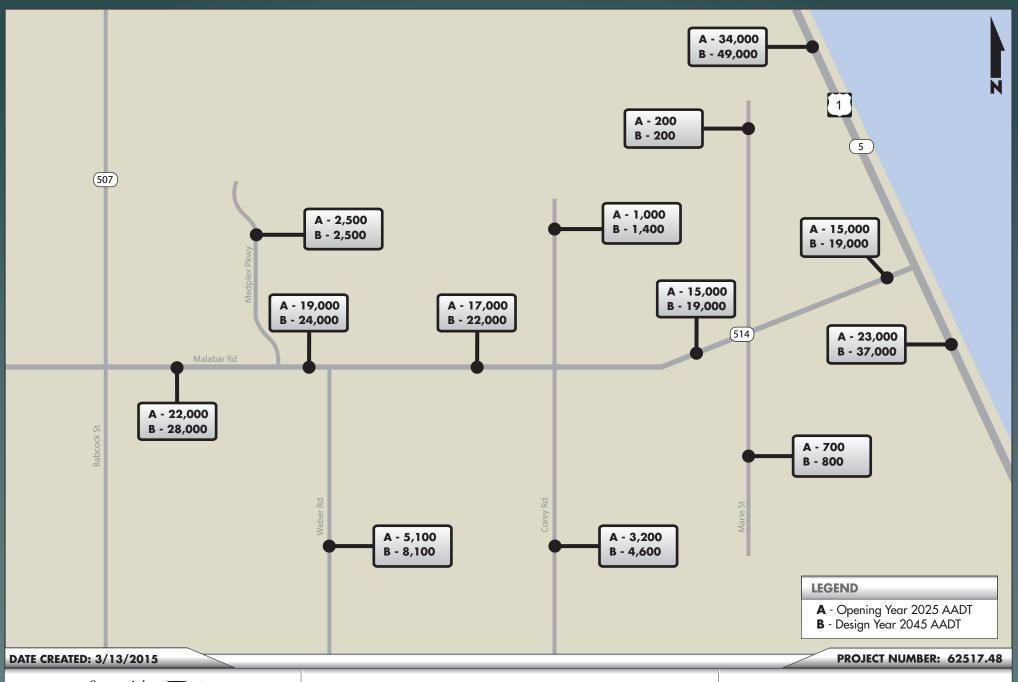
The growth rates obtained from Trends analysis, FSUTMS models, and population estimates were compared to get the recommended growth rates. Comparing the growth rates from the above sources, annual growth rates of 1.8% (based on BEBR High Projection) and 3.2% (based on CFRPM model) per year are recommended for developing future traffic projections on SR 514 through the opening year 2025 for No-Build and Build Scenarios, respectively. For design year 2045 along the mainline SR 514 corridor, future traffic projections were established upto the model horizon year 2035 and then the medium population growth rate of 0.87% was applied to the Year 2035 volumes to project the traffic for 2045 for both no-build and build conditions.

Simple annual growth rates of 5.4%, 9.0% and 4.3% per year (based on CFRPM Model Analysis) were recommended for developing future traffic projections on US 1, Weber Road and Corey Road, respectively for No Build and Build Scenarios for the opening year 2025. For these side streets for the design year 2045, future traffic projections were established upto the model horizon year 2035 and then the medium population growth rate of 0.87% was applied to project the traffic for 2045 for both no-build and build conditions. No growth rate was used for Medplex Parkway for no-build or build scenario since it was not anticipated to have any growth. For Marie Street, BEBR medium population growth rate of 0.87% was used for both no-build and build conditions. The growth rate recommendations are provided in **Table 12**.

**Table 12: Recommended Growth Rates** 

Roadway / Segment	(Existir	ng-2035)	(2035-2045)			
110111111111111111111111111111111111111	No Build	Build	No Build	Build		
Mainline						
SR 514	1.8%	3.2%	0.87%	0.87%		
Side Street						
US 1	5.4%	5.4%	0.87%	0.87%		
Weber Road	9%	9%	0.87%	0.87%		
Corey Road	4.3%	4.3%	0.87%	0.87%		
Marie Street	0.87%	0.87%	0.87%	0.87%		
Medplex Parkway	0%	0%	0%	0%		

The projected AADTs for the opening year and design year for No Build and Build alternatives are shown in **Figure 7** and **Figure 8**, respectively.



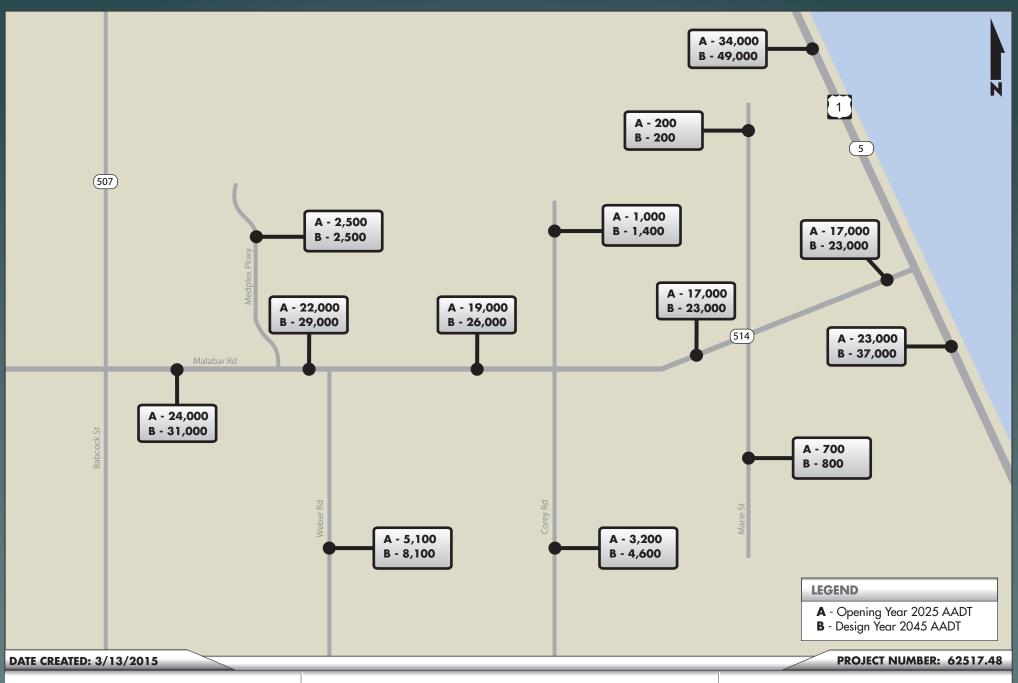


# SR 514 Design Traffic Technical Memorandum

Financial Project ID: 430136-1 Roadway ID: 70180000

# FIGURE 7

Future AADT Volumes No Build Scenario





# SR 514 Design Traffic Technical Memorandum

Financial Project ID: 430136-1 Roadway ID: 70180000

# FIGURE 8

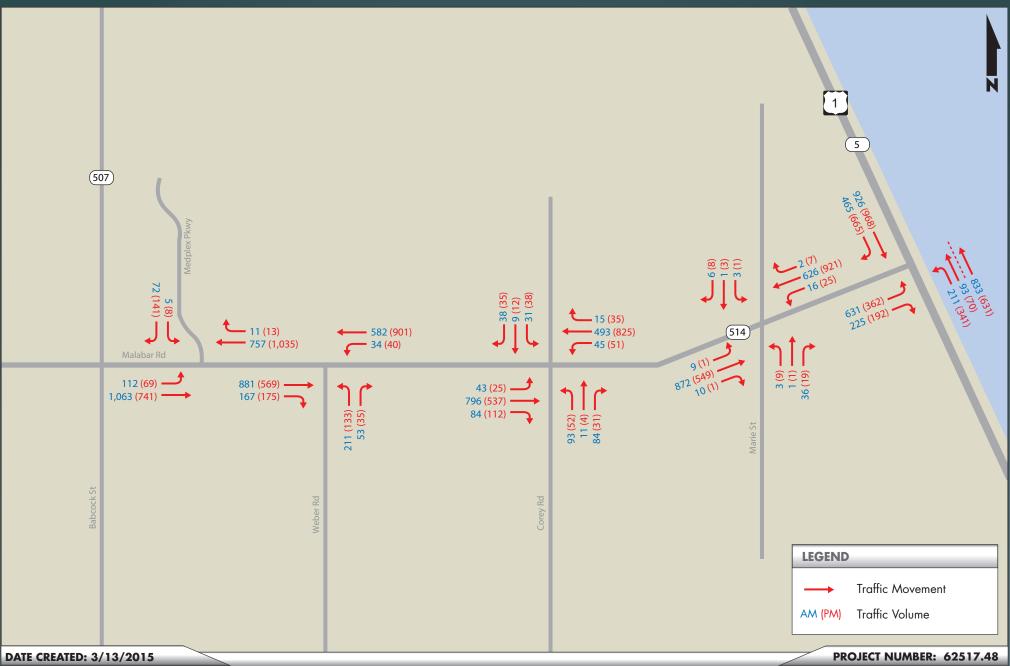
Future AADT Volumes Build Scenario

# 5.5 Intersection Design Hour Volumes

The existing and future year AADT's for the No Build and Build Alternatives along with the recommended traffic characteristics were used to develop the design hour volumes (DHVs) for both the a.m. and p.m. design hours at the intersections for the opening and design years.

The DHV's for the intersections were developed using the TURNS5 spreadsheet, which balances AADT's and calculates DHV's based on Standard K and D factors used as input into the program. The estimated design hour volumes for the a.m. and p.m. design hours from TURNS5 spreadsheet were assessed for reasonableness. Adjustments were made and are reported in the TURNS5 output sheets included in **Appendix K**. In general, it was made sure that the year 2025 and 2045 design hour volumes were higher than the existing peak hour volumes. These adjustments are necessary because accepting an estimated volume that is unrealistically large may lead to over design and accepting an estimated volume that is too small may result in an inadequate design.

The future year a.m. and p.m. design hour volumes for the No-Build Alternative are shown in **Figures 9 and 10** for the years 2025 and 2045, respectively. The future year a.m. and p.m. design hour volumes for the Build Alternative are shown in **Figures 11 through 12** for years 2025 and 2045, respectively.

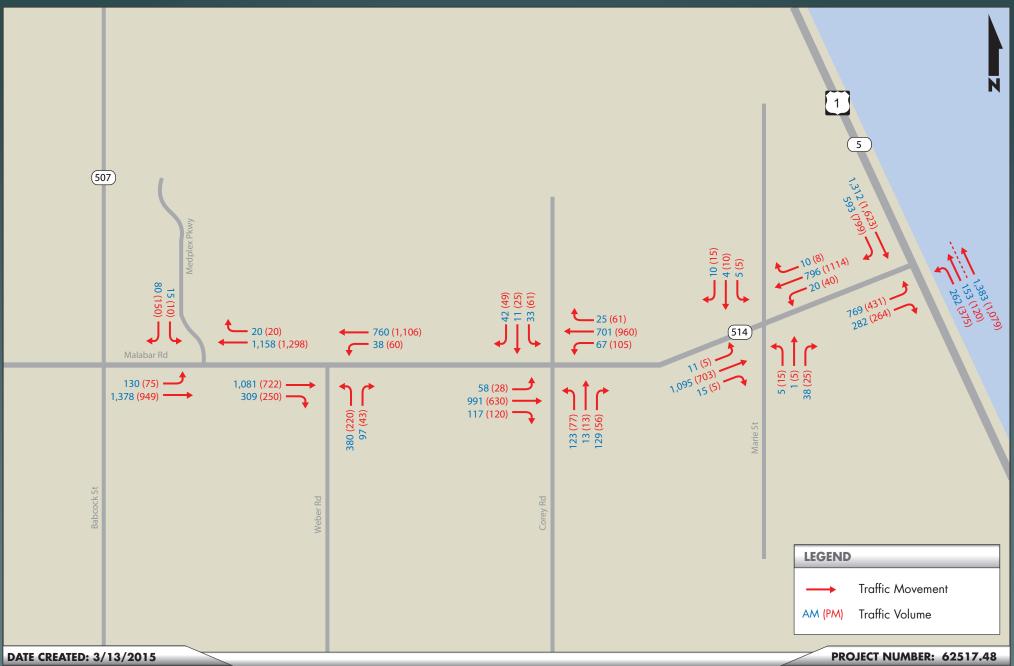




# SR 514 Design Traffic Technical Memorandum

Financial Project ID: 430136-1 Roadway ID: 70180000

FIGURE 9
No-Build Alternative Opening Year 2025
Turning Movement Volumes



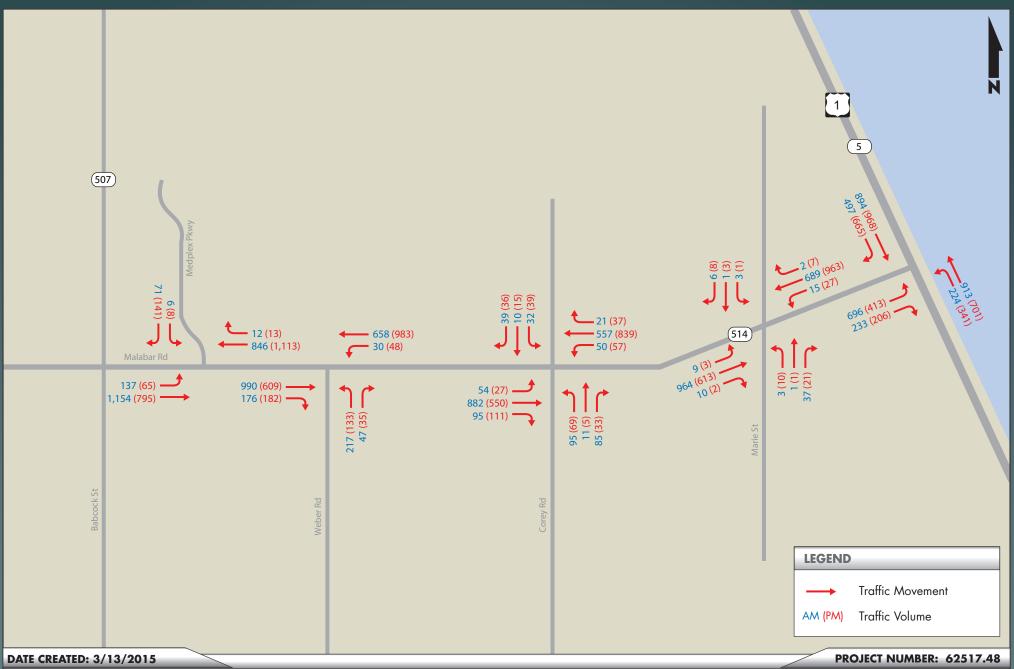


# SR 514 Design Traffic Technical Memorandum

Financial Project ID: 430136-1 Roadway ID: 70180000

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FIGURE 10
No-Build Alternative Design Year 2045
Turning Movement Volumes

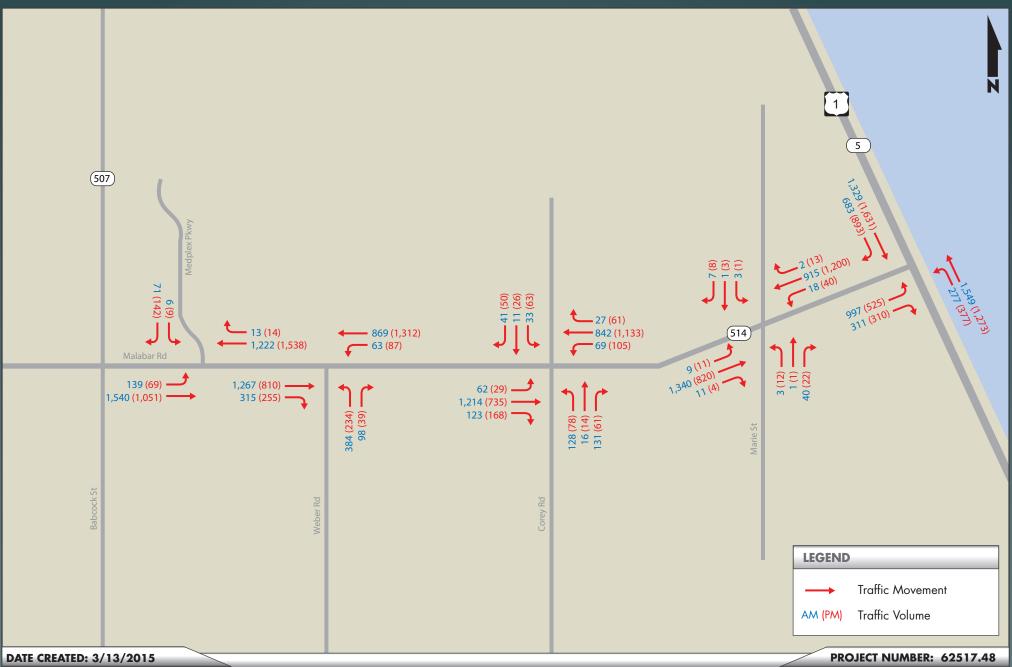




# SR 514 Design Traffic **Technical Memorandum**

Financial Project ID: 430136-1 Roadway ID: 70180000

FIGURE 11 Build Alternative Opening Year 2025 Turning Movement Volumes





# SR 514 Design Traffic Technical Memorandum

Financial Project ID: 430136-1 Roadway ID: 70180000

FIGURE 12

Build Alternative Design Year 2045
Turning Movement Volumes

# **6 Future Operational Analysis**

This section presents the results of the traffic operational analysis for the No Build and Build Alternatives. In addition, the unsignalized intersections 1) SR 514 at Weber Road, 2) SR 514 at Corey Road were for evaluated for future signal requirements. The Build Alternative was designed to examine how the widening of SR 507 in the study area and different geometric improvements at the study intersections would affect the traffic flow. The level of service for the study intersections was determined using Synchro software version 8.0. Analysis techniques utilized in the study include the signalized and unsignalized intersections. The outputs from Synchro 8 were presented as results for the intersection LOS analysis.

# **6.1** Future Signal Requirements

Initially, unsignalized intersections 1) SR 514 at Weber Road and 2) SR 514 at Corey Road were evaluated for future signal requirements under the No Build Alternative. The other unsignalized intersections at Medplex Parkway and Marie Street with SR 514 have very low peak hour as well as future AADT volumes on the minor street, and these volumes would not warrant a signal based on the minimum vehicular volume or interruption of continuous traffic criteria. Therefore, a signal warrant analysis was not performed for these two unsignalized intersections. For Weber Road and Corey Road, signal warrant analysis was performed for no-build and build conditions. The need for future signal requirements was evaluated using signal warrant 1 as specified in the Manual on Uniform Traffic Control Devices (MUTCD) 2009 Edition. Since information required for all other warrants cannot be predicted, only warrant 1 (the Minimum Vehicle Volumes and interruption of continuous traffic warrants) was used for future conditions,

In determining the future volumes for signal warrant analysis, initially, the future AADT volumes at this intersection were segregated into hourly volumes for a 24-hour period using percentages from the existing daily volume counts. Then, the eight highest hourly volumes from these calculated 24-hour volumes were used in the signal warrant analysis. Since the critical speed is greater than 40 MPH, the 70% criteria for signal warrant 1 is used.

Following are the results of the signal warrant analysis for the above-mentioned two intersections under the No Build Alternative:

- Warrant 1 was fulfilled at SR 514 @ Weber Road and SR 514 @ Corey Road starting from the opening year 2025 for no-build conditions.
- Warrant 1 was fulfilled at SR 514 @ Weber Road and SR 514 @ Corey Road starting from the opening year 2025 for build conditions.

Since signals were warranted for both intersections from the opening year 2025, design year 2045 warrant analysis was not needed to be performed. It is important to note that all the unsignalized intersections within the study limits have to be revisited in the future to determine if any of applicable signal warrants will be satisfied. The actual determination of when this location will be signalized shall be based on actual traffic counts and other pertinent data required for signal warrant analysis. The future signal warrant sheets are provided in **Appendix L**.

# 6.2 No Build Alternative Operational Analysis

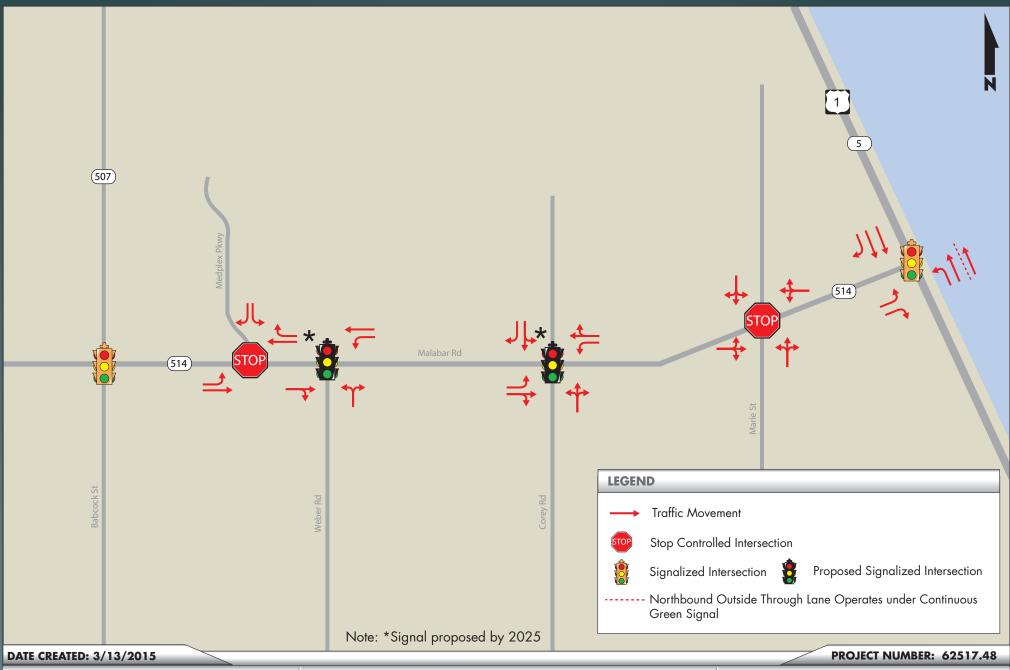
## 6.2.1 No Build Geometry

The No Build intersection geometry (**Figure 13**) is same as the existing geometry with the exception of the following traffic control improvements.

- Signalize the intersection of SR 514 at Weber Road by the opening year 2025.
- Signalize the intersection of SR 514 at Corey Road by the opening year 2025.
- Provide a westbound left turn lane on SR 514 and Weber Road intersection. This is consistent with the latest Design Traffic Forecast study for SR 514 between west of Weber Road and Corey Road (Financial Project ID 413761-1)
- Provide eastbound and westbound left turn lanes on SR 514 and Corey Road intersection. This is consistent with the latest Design Traffic Forecast study for SR 514 between west of Weber Road and Corey Road (Financial Project ID 413761-1)

## 6.2.2 Intersection Operational Analysis

Intersection operational analyses were performed for the opening and design years for the No Build Alternative for the a.m. and p.m. design hours. The results of the intersection analysis are summarized in **Table 13** and the Synchro outputs are provided in **Appendix M**.





# SR 514 Design Traffic Technical Memorandum

Financial Project ID: 430136-1 Roadway ID: 70180000

FIGURE 13 No Build Geometry

# 6.2.2.1 Opening Year 2025 - AM & PM Design Hours

As shown in **Table 13**, under the No Build Alternative, the following intersections are projected to operate below the adopted LOS standard "D" during the 2025 traffic conditions.

- The minor street approach at SR 514 and Corey Road (a.m. design hour)
- The minor street approaches at SR 514 with Medplex Parkway and Marie Street intersections (p.m. design hours)

Table 13: Future Intersection LOS Summary - No Build Alternative

Study Intersection	Traffic Control	Adopted LOS		sign Hour ny/LOS)	PM Design Hour (Delay/LOS)		
	Control	LUS	2025	2045	2025	2045	
Medplex Parkway	Cton	D	10.3/B	13.9/B	11.7/B	14.1/B	
Meupiex Farkway	Stop		32.0/D	64.9/ <mark>F</mark>	40.5/ <mark>E</mark>	116.8/ <mark>F</mark>	
Weber Road	Signal	D	50.0/D	152.9/ <b>F</b>	15.6/B	55.2/ <mark>E</mark>	
Corey Road	Signal	D	75.6/ <mark>E</mark>	119.6/ <mark>F</mark>	39.5/D	76.5/ <mark>E</mark>	
Marie Street	Ston	D	10.2/B	11.6/B	10.5/B	11.4/B	
iviane sueet	Stop		34.2/D	91.7/ <mark>F</mark>	36.6/ <b>E</b>	177.5/ <mark>F</mark>	
US 1	Signal	D	34.9/C	91.8/ <mark>F</mark>	25.2/C	110.4/ <b>F</b>	

## **Notes:**

- 1. Synchro based outputs are presented in this table for both the signalized and unsignalized intersections
- 2. Overall intersection delay and LOS results are reported for signalized intersections
- 3. In case of unsignalized intersections, worst case results for both major street delay/LOS (in top row) and minor street delay/LOS (in bottom row) are reported
- 4. Result shown in red color exceeds the adopted LOS standard

# 6.2.2.2 Design Year 2045 - AM & PM Design Hours

As shown in **Table 13**, under the No Build Alternative, the following intersections are projected to operate below the adopted LOS standard "D" during the 2045 traffic conditions.

- Minor street approaches of SR 514 and Weber Road, Corey Road and Marie Street (a.m. and p.m. design hours)
- The minor street approach at SR 514 and Medplex Parkway (a.m. and p.m. design hour)
- SR 514 and US 1 (a.m. and p.m. design hours)

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# 6.2.3 Arterial Level of Service Analysis

The roadway segments level of service analysis was performed for the opening year 2025 and design year 2045 no-build conditions a.m. and p.m. peak hour conditions using FDOT's generalized planning analysis. HCS software was not used for the arterial level of service analysis because of the unique signal phasing pattern of SR 514 @ US 1 signalized intersection, where it has an exclusive northbound outside though lane operating free in the no-build conditions for both opening and design year. As a result, the FDOT's generalized service volumes was used. The roadway peak-hour peak-direction volumes were obtained by using recommended K and D factors for SR 514 applied to the future recommended AADTs. The peak-hour peak-direction volumes were compared with service volumes provided in the FDOT's generalized LOS tables to determine the future arterial operating conditions.

**Table 14** shows the arterial level of service results for the no-build conditions. As shown in **Table 14**, SR 514 between Medplex Parkway to Corey Road is expected to operate below LOS D in the no-build conditions from opening year 2025. The segment between Corey Road and US 1 is expected to operate below LOS D in the design year. A copy of the FDOT generalized service volume table for urbanized areas is provided in the **Appendix F**.

Table 14: Future Arterial LOS Summary - No Build Alternative

Roadway	#. Of Lanes	FDOT LOS Standard	Maximum Service Volume*		Pk. Hr. Pk. Dir. Volume		OS
SR 514				2025	2045	2025	2045
Medplex Parkway to Weber Road	2	D	924	1,048	1,166	E	Е
Weber Road to Corey Road	2	D	924	934	1,171	Е	E
Corey Road to Marie Street	2	D	924	810	1,020	D	E
Marie Street to US 1	2	D	968	832	1,042	D	Е

Note: Maximum service volumes have been adjusted for presence of turn lanes as per 2012 FDOT Level Of Service handbook Table 7

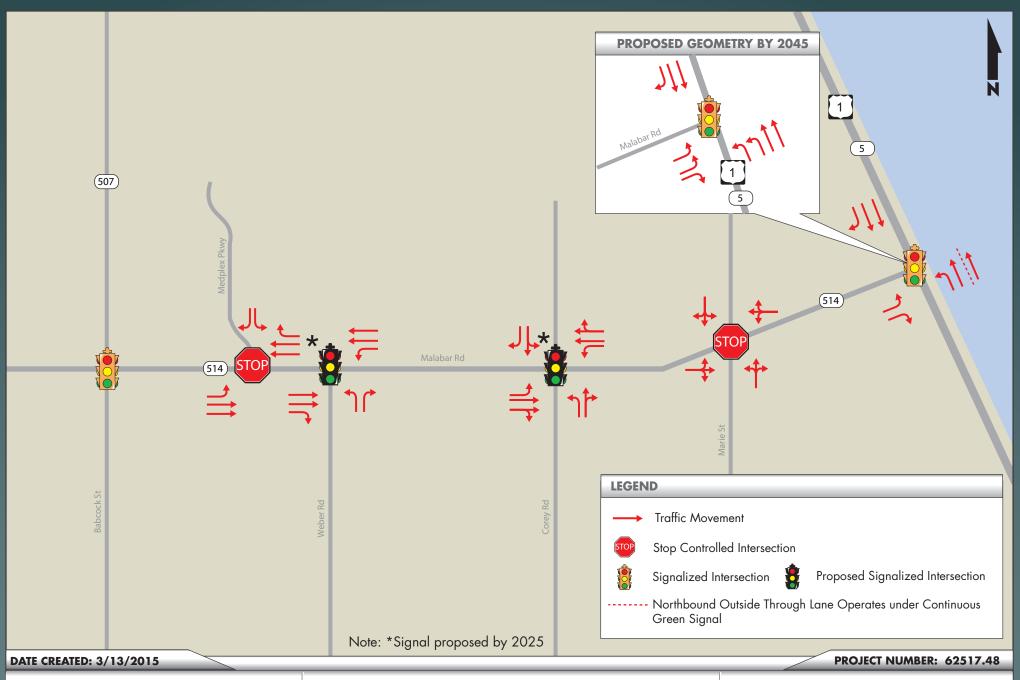
# 6.3 Build Alternative Operational Analysis

## 6.3.1 Build Geometry

The proposed build geometry for the SR 514 between Babcock Street and US 1 includes widening of SR 514 from a two to four lane section between Babcock Street to Corey Road, and dropping the four lane section to a two lane section east of Corey Road. In addition, the following intersection improvements are included in the Build Alternative starting from the opening year 2025 (Figure 14).

- SR 514 and Weber Road
  - Proposed signal by the opening year 2025.
  - An exclusive eastbound right turn lane,
  - An exclusive westbound left turn lane, and
  - An exclusive northbound left turn lane.
- SR 514 and Corey Road
  - Proposed signal by the design year 2025.
  - An exclusive eastbound left turn lane,
  - An exclusive westbound left turn lane, and
  - An exclusive northbound left turn lane.
- SR 514 and US 1
  - Maintain the existing geometry through opening year 2025 with a free northbound outside through lane.
  - By the design year 2045, provide an additional (second) eastbound left turn lane and additional (second) northbound left turn lane; these improvements will eliminate the free northbound outside through movement (Florida T-intersection) at this intersection.

In addition to the build alternative improvements, the recently completed access management plan report (dated November 2014) was also consulted for any proposed access modifications that can affect the design year geometry. The access management plan (See **Appendix N**) does not alter the build geometry outlined above.





# SR 514 Design Traffic Technical Memorandum

Financial Project ID: 430136-1 Roadway ID: 70180000

FIGURE 14

Build Geometry

## 6.3.2 Intersection Operational Analysis

Intersection operational analyses were performed for the opening and design years for the Build Alternative for the a.m. and p.m. design hours. The results of the intersection analysis are summarized in **Table 15** and the Synchro outputs are provided in **Appendix O**.

With the exception of the minor street approach at the intersection of SR 514 @ Medplex Parkway and SR 514 @ Marie Street that is projected to operate below the adopted LOS during the design year 2045, all other study intersections are projected to operate at or above LOS "D" under the Build Alternative through the design year 2045.

It can be concluded that all of the study intersections are projected to operate with reduced delay and better LOS under the Build alternative compared to the No Build alternative.

Table 15: Future Intersection LOS Summary - Build Alternative

Study Intersection	Traffic Control	Adopted LOS		sign Hour ny/LOS)	PM Design Hour (Delay/LOS)		
	Common	LUS	2025	2045	2025	2045	
Medplex Parkway	Stop	D	10.7/B	12.8/B	12.7/B	21.3/C	
Medplex Farkway	Stop		26.0/D	36.2/ <b>E</b>	27.7/D	59.1/ <b>F</b>	
Weber Road	Signal	D	11.1/B	16.1/B	8.0/A	11.5/B	
Corey Road	Signal	D	17.1/B	20.5/C	16.7/B	19.5/B	
Marie Street	Cton	D	10.4/B	12.3/B	10.3/B	12.1/B	
iviane sueet	Stop		34.5/D	91.7/ <mark>F</mark>	38.4/E	203.4/F	
US 1	Signal	D	37.7/D	43.4/D	28.6/C	37.6/D	

## **Notes:**

- 1. Synchro based outputs are presented in this table for both the signalized and unsignalized intersections
- 2. Overall intersection delay and LOS results are reported for signalized intersections
- 3. In case of unsignalized intersections, worst case results for both major street delay/LOS (in top row) and minor street delay/LOS (in bottom row) are reported
- 4. Result shown in red color exceeds the adopted LOS standard

# 6.3.3 Arterial Level of Service Analysis

The roadway segments level of service analysis was performed for the Build Alternative using the Synchro 8. The roadway segment levels of service analyses were performed for the opening and design years for the Build Alternative. The results of the roadway link level of service are summarized in Table 16. As illustrated in Table 16, all the roadway segments between Weber Road and US 1 along SR 514 are projected to operate above LOS D under the Build Alternative in design year 2045. Note that even though the segment between Corey Road and US 1 is same as no-build conditions (two lane section), the provision of additional left turn lanes at the intersection of SR 514 @ US 1 made a better signal optimization possible for this intersection, resulting a better level of service compared to the no-build conditions.

Table 16: Future Arterial LOS Analysis Summary - Build Alternative

Roadway Segment	AM Design Hour (MPH/LOS)				PM Design Hour (MPH/LOS)			
Roadway Segment	Year 2025		Year 2045		Year 2025		Year 2045	
	EB	WB	EB	WB	EB	WB	EB	WB
SR 514 Corridor								
Weber Road to Corey Road	42.3/A	49.7/A	40.5/A	48.6/A	44.3/A	49.3/A	42.6/A	46.7/A
Corey Road to US1	34.6/B	36.2/A	24.9/C	35.7/A	34.8/B	35.4/A	25.8/C	35.0/B
Weber Road to US1	36.9/A	40.3/A	30.5/B	39.7/A	37.9/A	39.6/A	32.0/B	38.6/A

# 6.4 Conclusion

Based on the evaluation of the intersection and roadway operating conditions for the year 2045 under No Build and Build traffic conditions, this study identified the Build Alternative to adequately accommodate the forecasted volumes through the design year 2045 compared to the No Build Alternative.

# 7 Recommendations

Based on the evaluation of operating conditions for the design year 2045 Build traffic conditions, this study recommends the roadway and intersection capacity improvements as shown in **Table** 17 and in **Figure 14** to handle the projected traffic volumes within the study corridor.

**Table 17: Recommended Build Alternative Capacity Improvements** 

Roadway/Intersection	Improvement	Proposed Begin Schedule
SR 514 from Medplex Parkway to Corey Road	Additional EB and WB through lanes (4-lane section)	Year 2025
SR 514 from Corey Road to US 1	A two-lane section is anticipated to be adequate for the Build conditions through the design year 2045	Year 2025
SR 514 @ Weber Road	Proposed Signal; Exclusive EB right turn lane and WB left turn lane; Exclusive NB left turn lane	Year 2025
SR 514 @ Corey Road	Exclusive EB and WB left turn lanes; Exclusive NB left turn lane	Year 2025
,	Proposed Signal	Year 2025
SR 514 @ US 1	Additional (second) EB and NB left turn lanes; Eliminate free flow NB outside through movement	Year 2045

In addition to the above improvements, this study used the red time formula (source: ITE Traffic Engineering Manual, 5th Edition), to develop the queue length requirements at the signalized intersections along the study corridor. **Table 18** shows the recommended queue lengths for the design year 2045 design hour conditions. Queue length calculations are shown in **Appendix P**.

It should be noted that the specific lengths do not include the taper or deceleration distance (refer to FDOT index 301 to determine the appropriate specific taper and deceleration length). These queue lengths are recommended at locations where these lengths can be achieved. Actual design and implementation of these queue length requirements will be a function of design and the physical practicality of their construction.

Table 18: Recommended Queue Lengths of Turn Lanes - Year 2045 Build Alternative

SR 514 @	Turn Lane Queue Length (feet)							
	EBL	EBR	WBL	WBR	NBL	NBR	SBL	SBR
Weber Road	-	125	100	-	200	-	-	-
Corey Road	100	-	100	-	100	-	-	100
US 1	375	-	-	-	200	-	-	225

Note: '-' Not Applicable

# 8 Appendices

**Appendix A -** Space Coast Transportation Planning Organization's Transportation Improvement Plan and Year 2035 Long Range Transit Needs Plan

**Appendix B** - RCI Data for SR 514 Corridor

**Appendix C** -Traffic Counts

**Appendix D -** FDOT Seasonal & Axle Adjustment Factors

Appendix E - Signal Timings & SYNCHRO Intersection Analysis Outputs for Year 2015

**Appendix F** - FDOT Generalized Table

**Appendix G -** Trends Analysis Sheets

**Appendix H -** BEBR Population Projections for Brevard County

**Appendix I -** Year 2035 Model Plots for No-Build and Build Alternatives

**Appendix J -** Year 2038 AADTs from previous SR 514 Design Traffic Technical Memorandum

**Appendix K** - TURNS5 Sheets

**Appendix L** - Signal Warrant Analysis Sheets

**Appendix M** - Synchro Output Sheets - No Build Alternative

**Appendix N** – Excerpt from the SR 514 Access Management Plan

**Appendix O** - Synchro Output Sheets - Build Alternative

**Appendix P** - Queue Length Calculations - Design Year 2045 Build Conditions

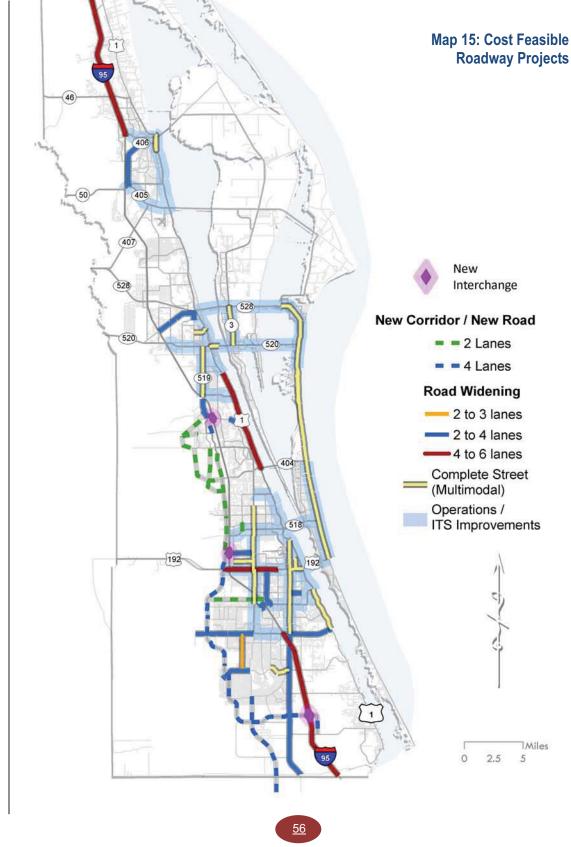
# Appendix A

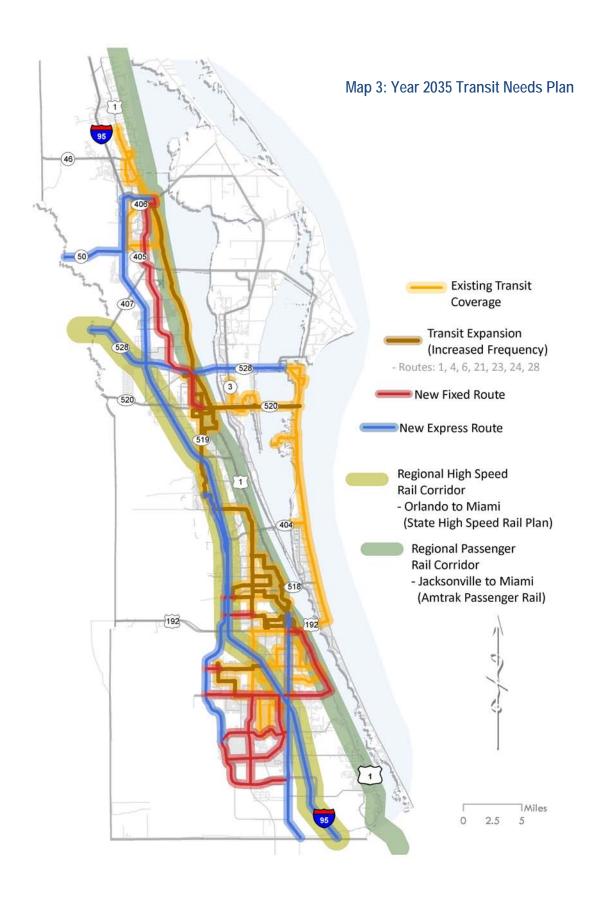
Space Coast Transportation Planning Organization's Transportation Improvement Plan and Year 2035 Long Range Transit Needs Plan

# Space Coast Transportation Planning Organization Transportation Improvement Program (TIP) FY 2015 - FY 2019 Adopted July 10, 2014; Amended 9/11/14/%#%#%



Phase	Fund Source	2015	2016	2017	2018	2019	Total
Type of Work:	I-95 INTERCHANGE AT VIEI INTERCHANGE (NEW)				Length: 0.535 mi MI Lead Agency: Florid LRTP#: PAGE 14	•	
Description: NE	W I-95 INTERCHANGE; RIGH	T OF WAY NEEDED TO	CONSTRUCT INTERCHANGE W	VILL BE DONATED BY 1	THE VIERA COMPANY. GOES W	ITH PROJECT L-VIE	ERA-01
PD&E	DS	2,301	0	0	0	0	2,301
PD&E	DIH	8,368	0	Ů.	0	0	8,368
PE	DDR	300,000	0	0	0	0	300,000
PD&E	LFP	17,130	0	0	0	0	17,130
PE	PVT	870,000	0	0	0	0	870,000
PE	DIH	070,000	10,000	0	0	0	10,000
PE	DS	0	1,130,000	0	0	0	1,130,000
	PVT	0		0	0	· ·	, ,
ROW		0	12,600,000	0	0	0	12,600,000
	otal	1,197,799	13,740,000	0	0	0	14,937,799
	Prior Years Cost		Future Years Cost		Total	Project Cost	14,937,799
Proj# 4301361	SR 514 (MALABAR RD) FR	OM BABCOCK STREE	T TO US 1		Length: 3.698 mi MI	*Non-SIS*	*RSP*
Type of Work:	PD&E/EMO STUDY				Lead Agency: Florid LRTP#: Page 59, Tal		insportation
PD&E	DIH	1,159	0	0	0	0	1,159
PE	DIH	0	0	0	0	5,000	5,000
PE	DDR	0	0	0	0	2,929,185	2,929,185
т	otal	1,159	0	0	0	2,934,185	2,935,344
	Prior Years Cost	1,058,661	Future Years Cost		Total	Project Cost	3,994,005
	BEACHLINE EAST ASSET T FUNDING ACTION	RANSFER			Length: 8.421 MI MI Lead Agency: Florid	*SIS* a Department of Tra	nsportation
PE	PKYI	60,000,000	0	0	0	0	60,000,000
T	otal	60,000,000	0	0	0	0	60,000,000
	Prior Years Cost		Future Years Cost		Total	Project Cost	60,000,000





# Appendix B

RCI Data for SR 514 Corridor

**SR 514 Design Traffic Technical Memorandum** *Roadway Characteristic Information for SR 514 from Babcock Street to US 1* 

Feature 112	- FEDERAL S	SYSTEM		LE	NGTH/	NON-INTERLOCKING
Beg. MP	End. MP	Characteristic	Value	Unit		Char. Updated
2.457		EDERAL HIGHWAY SYSTEM CODE	6 - STP	CD	С	RCICNVRT 12/18/1995
2.457	6.698 O	LD FEDERAL HIGHWAY SYSTEM	2 - FA PRIMARY	CD	С	RCICNVRT 04/01/1996
<b>Feature 114</b>	- LOCAL SYS	STEM		LE	NGTH/	NON-INTERLOCKING
Beg. MP	End. MP	Characteristic	Value	Unit	Side	Char. Updated
2.457	6.698 L	OCAL NAME OF FACILITY	MALABAR RD	ID	С	MT510RM 06/14/2010
Feature 120	- TYPEROAD	)		LE	NGTH/	NON-INTERLOCKING
Beg. MP	End. MP	Characteristic	Value	Unit		Char. Updated
2.457		OUTE SIGNING	9 - NONE OF THE ABOVE	CD	С	MT590RC 05/05/2010
2.457		YPE OF ROAD	2 - DIVIDED	CD	С	RCICNVRT 10/28/1999
3.218		OUTE SIGNING	9 - NONE OF THE ABOVE	CD	С	MT590RC 05/05/2010
3.218		YPE OF ROAD	2 - DIVIDED	CD	С	MT590RC 11/16/2005
3.946		OUTE SIGNING	9 - NONE OF THE ABOVE	CD	C	MT590RC 05/05/2010
3.946		YPE OF ROAD	0 - NOT DIVIDED	CD	C	MT590RC 11/16/2005
		IAL CLASSIFICATION	o ner bribbb			NON-INTERLOCKING
Beg. MP	End. MP	Characteristic	Value	Unit	_	Char. Updated
2.457		UNCTIONAL CLASSIFICATION	16 - URBAN MINOR ART	CD	C	PL934TH 12/02/2004
	- THRU LAN		10 ORDIN MINOR PIKT			NON-INTERLOCKING
Beg. MP	End. MP	Characteristic	Value	Unit		Char. Updated
2.457		UMBER OF ROADWAY LANES	3	EA	L	RCICNVRT 10/28/1999
2.437		AVEMENT SURFACE WIDTH	36	FT	L	RCICNVRT 10/28/1999
2.457		UMBER OF ROADWAY LANES	3	EA	R	RCICNVRT 10/28/1999 RCICNVRT 10/28/1999
2.437			36	FT	R	
2.06		AVEMENT SURFACE WIDTH				RCICNVRT 10/28/1999
3.06		TUMBER OF ROADWAY LANES	2	EA	L	RCICNVRT 10/28/1999
		AVEMENT SURFACE WIDTH	26	FT	L	RCICNVRT 10/28/1999
3.06		TUMBER OF ROADWAY LANES	2	EA	R	RCICNVRT 10/28/1999
_		AVEMENT SURFACE WIDTH	26	FT	R	RCICNVRT 10/28/1999
3.218		UMBER OF ROADWAY LANES	1	EA	L	RCICNVRT 09/22/1992
		AVEMENT SURFACE WIDTH	12	FT	L	RCICNVRT 09/22/1992
3.218		UMBER OF ROADWAY LANES	1	EA	R	RCICNVRT 09/22/1992
		AVEMENT SURFACE WIDTH	12	FT	R	RCICNVRT 09/22/1992
3.946	6.698 N	UMBER OF ROADWAY LANES	2	EA	С	RCICNVRT 09/22/1992
	P	AVEMENT SURFACE WIDTH	24	FT	C	RCICNVRT 09/22/1992
Feature 215	- MEDIAN			LE	NGTH/	NON-INTERLOCKING
Beg. MP	End. MP	Characteristic	Value	Unit	Side	Char. Updated
2.457	3.06 H	IGHWAY MEDIAN WIDTH	22	FT	C	RCICNVRT 10/28/1999
2.457	3.218 H	IIGHWAY MEDIAN TYPE	17 - CURB W/LAWN/TURF	CD	С	RCICNVRT 10/28/1999
3.06	3.218 H	IIGHWAY MEDIAN WIDTH	20	FT	С	RCICNVRT 10/28/1999
3.218	3.946 H	IIGHWAY MEDIAN WIDTH	12	FT	С	MT590RC 11/16/2005
	H	IIGHWAY MEDIAN TYPE	01 - PAINTED/TWO-WAY LEFT TURN	CD	С	MT590RC 11/16/2005
Feature 216	- BIKE LANE	S/PED SIDEWALK		LE	NGTH/	NON-INTERLOCKING
Beg. MP	End. MP	Characteristic	Value	Unit	Side	Char. Updated
3	3.224 SI	IDEWALK BARRIER CODE	0 - NO BARRIER	CD	L	MT590RC 12/07/2010
	SI	IDEWALK WIDTH AND SEP.	5	FT	L	MT510MD 12/14/2010
3		IDEWALK BARRIER CODE	0 - NO BARRIER	CD	R	MT590RC 12/07/2010
		IDEWALK WIDTH AND SEP.	5	FT	R	MT510MD 12/14/2010
3.217		ICYCLE LANE	0 - UNDESIGNATED	CD	L	MT590RC 11/04/2010
3.217		ICYCLE LANE	0 - UNDESIGNATED	CD	R	MT590RC 11/04/2010
		DESCRIPTION				NON-INTERLOCKING
Beg. MP	End. MP	Characteristic	Value	Unit		Char. Updated
2.457		AVEMENT CONDITION	3.5	EA	L	MT590RC 10/04/2005
2.457		AVEMENT INDEX	1 - HIGH ASPHALT	CD	L	MT590RC 10/04/2005
2.107	3.210			52		2000
2.457	3 218 P	AVEMENT SURFACE TYPE	28 - SHEET ASPHALT, ASPH. CONC., BIT.	CD	L	RCICNVRT 10/28/1999
2.457		AVEMENT CONDITION	3.5	EA	R	MT590RC 10/04/2005
2.457		AVEMENT INDEX	1 - HIGH ASPHALT	CD	R	MT590RC 10/04/2005
2.437	9.210		1 11101111011111111		11	1111070110 10/ 04/ 2000
2.457	2 210 D	AVEMENT SURFACE TYPE	28 - SHEET ASPHALT, ASPH. CONC., BIT.	CD	R	RCICNVRT 10/28/1999
3.218		AVEMENT SURFACE TIPE AVEMENT CONDITION	3.5	EA	C	MT590RC 10/04/2005
3.218	3.363 PA	AVEMENT INDEX	1 - HIGH ASPHALT	CD	С	MT590RC 10/04/2005
2 210	2 E ( E D	AVENENT CLIDE A CE TVDE	20 CHEET ACDITALT ACDIT CONC. DIT	CD	C	DCICNIADT 06 /05 /1096
3.218		AVEMENT SURFACE TYPE	28 - SHEET ASPHALT, ASPH. CONC., BIT.	CD	С	RCICNVRT 06/05/1986
3.565		AVEMENT CONDITION	3.5	EA	L	MT590RC 10/04/2005
3.565	3.803 P.	AVEMENT INDEX	1 - HIGH ASPHALT	CD	L	MT590RC 10/04/2005
2	2 000 B	A LIEN CENTER CLUDE A CENTRALE	20 CHEET ACRUALE ACRUA COMO DE	C.D.	_	DCICN HIDE 00 /00 /1000
3.565		AVEMENT SURFACE TYPE	28 - SHEET ASPHALT, ASPH. CONC., BIT.	CD	L	RCICNVRT 09/22/1992
3.565		AVEMENT CONDITION	3.5	EA	R	MT590RC 10/04/2005
3.565	3.803 P.	AVEMENT INDEX	1 - HIGH ASPHALT	CD	R	MT590RC 10/04/2005
3.565		AVEMENT SURFACE TYPE	28 - SHEET ASPHALT, ASPH. CONC., BIT.	CD	R	RCICNVRT 09/22/1992
3.803		AVEMENT CONDITION	3.5	EA	C	MT590RC 10/04/2005
3.803	6.698 P.	AVEMENT INDEX	1 - HIGH ASPHALT	CD	С	MT590RC 10/04/2005
3.803	6.698 P.	AVEMENT SURFACE TYPE	28 - SHEET ASPHALT, ASPH. CONC., BIT.	CD	С	RCICNVRT 09/22/1992

Feature 232			<b>X7.1</b>			NON-INTERLOCKING
Beg. MP	End. MP	Characteristic	Value	Unit		Char. Updated
2.457		FRICTION COURSE	3 - TYPE-3	CD	L	RCICNVRT 10/28/1999
2.457		FRICTION COURSE	3 - TYPE-3	CD	R	RCICNVRT 10/28/1999
2.973	3.052	PAVEMENT SURFACE LAYER 3	S - TYPE S ASPHALTIC CONCRETE	CD	L	RCICNVRT 10/29/1999
2.973	3.052	PAVEMENT SURFACE THICKNESS 3	1	IN	L	RCICNVRT 10/28/1999
2.973	3.052	PAVEMENT SURFACE LAYER 3	S - TYPE S ASPHALTIC CONCRETE	CD	R	RCICNVRT 10/29/1999
2.973	3.052	PAVEMENT SURFACE THICKNESS 3	1	IN	R	RCICNVRT 10/28/1999
2.973		PAVEMENT SURFACE THICKNESS 1	0.75	IN	L	RCICNVRT 10/09/1993
2.973		PAVEMENT SURFACE THICKNESS 2	2	IN	L	RCICNVRT 10/09/1999
2.973		PAVEMENT SURFACE THICKNESS 1	0.75	IN	R	RCICNVRT 10/09/1993
2.973		PAVEMENT SURFACE THICKNESS 2	2	IN	R	RCICNVRT 10/09/199
3.052		FRICTION COURSE	2 - TYPE-2	CD	L	RCICNVRT 10/28/199
3.052		FRICTION COURSE	2 - TYPE-2	CD	R	RCICNVRT 10/28/199
3.218		FRICTION COURSE	3 - TYPE-3	CD	С	RCICNVRT 08/17/199
3.565	3.803	FRICTION COURSE	3 - TYPE-3	CD	L	RCICNVRT 08/17/199
3.565	3.803	FRICTION COURSE	3 - TYPE-3	CD	R	RCICNVRT 08/17/199
3.803	6.698	FRICTION COURSE	3 - TYPE-3	CD	С	RCICNVRT 08/17/199
	- SPEED Z					NON-INTERLOCKING
Beg. MP	End. MP	Characteristic	Value	Unit		Char. Updated
2.457		DATE SPEED ZONE APPROVED	12/16/1967	DA	C	RCICNVRT 10/23/198
2.437	3.30		· ·			
2.2.1	<b>2</b> 2 =	MAXIMUM SPEED LIMIT	45	MH	C	RCICNVRT 10/23/198
3.36	3.85	DATE SPEED ZONE APPROVED	11/06/2003	DA	C	TO562JG 02/28/2006
		MAXIMUM SPEED LIMIT	45	MH	С	TO562JG 02/28/2006
3.85	5.974	DATE SPEED ZONE APPROVED	02/07/2003	DA	С	TO562JG 02/28/2006
		MAXIMUM SPEED LIMIT	55	MH	С	TO562JG 02/28/2006
5.974	6.332	DATE SPEED ZONE APPROVED	12/16/1980	DA	С	RCICNVRT 10/11/198
		MAXIMUM SPEED LIMIT	45	MH	C	RCICNVRT 06/19/199
6.332	6 609	DATE SPEED ZONE APPROVED	12/16/1980	DA	C	RCICNVRT 06/19/199
0.332	0.090					
	0707717	MAXIMUM SPEED LIMIT	30	MH	С	RCICNVRT 06/19/1990
	- SIGNALS					NON-INTERLOCKING
Beg. MP	End. MP	Characteristic	Value		Side	Char. Updated
3.06		SIDE STREET NAME	BABCOCK ST	ID	С	TO562JG 08/26/2011
		NON-COUNTED SIGNAL	02 - INTERSECTION CONTROL SIGNAL	CD	С	RCICNVRT 11/25/1985
		TYPE OF SIGNAL STRUCTURE	03 - CONCRETE STRAIN POLE	CD	С	TO562JG 08/26/2011
6.698		SIDE STREET NAME	US-1	ID	С	TO562JG 08/26/2011
0.050		JOHN STREET WINE		110		1000230 007 207 2011
		NON-COUNTED SIGNAL	02 - INTERSECTION CONTROL SIGNAL	CD	С	RCICNVRT 11/25/198
						, ,
		TYPE OF SIGNAL STRUCTURE	03 - CONCRETE STRAIN POLE	CD	С	TO562JG 08/26/2011
		FLOW BREAKS				NON-INTERLOCKING
Beg. MP	End. MP	Characteristic	Value	Unit		Char. Updated
2.457	3.06	AADT DATE	12/31/2011	DA	С	KNMEIGP 03/26/2012
		AADT TYPE	1 - FINAL ESTIMATE FROM SURVEY	CD	C	KNMEIGP 03/26/2012
		RDWY SECTION AVG "D" FACTOR	54.3	EA	С	KNMEIGP 03/26/2012
		AVG.30TH HI.HR.TRAFFIC / ADT	9	EA	С	KNMEIGP 03/26/2012
		SECTION AVERAGE T FACTOR	4.9	EA	C	KNMEIGP 03/26/2012
			38500	EA	C	KNMEIGP 03/26/2012
		SECTION AVERAGE ATT	1 00000			
2.06	F 204	SECTION AVERAGE ADT	10 /01 /0011		C	
3.06	5.384	AADT DATE	12/31/2011	DA	С	
3.06	5.384	AADT DATE AADT TYPE	1 - FINAL ESTIMATE FROM SURVEY	DA CD	С	KNMEIGP 03/26/2012
3.06	5.384	AADT DATE AADT TYPE RDWY SECTION AVG "D" FACTOR	1 - FINAL ESTIMATE FROM SURVEY 54.3	DA CD EA	C C	KNMEIGP 03/26/2012 KNMEIGP 03/26/2012
3.06	5.384	AADT DATE AADT TYPE	1 - FINAL ESTIMATE FROM SURVEY	DA CD	С	KNMEIGP 03/26/2012 KNMEIGP 03/26/2012
3.06	5.384	AADT DATE AADT TYPE RDWY SECTION AVG "D" FACTOR	1 - FINAL ESTIMATE FROM SURVEY 54.3	DA CD EA	C C	KNMEIGP 03/26/2012 KNMEIGP 03/26/2012 KNMEIGP 03/26/2012
3.06	5.384	AADT DATE AADT TYPE RDWY SECTION AVG "D" FACTOR AVG.30TH HI.HR.TRAFFIC / ADT SECTION AVERAGE T FACTOR	1 - FINAL ESTIMATE FROM SURVEY 54.3 9 5.4	DA CD EA EA	C C C	KNMEIGP 03/26/2012 KNMEIGP 03/26/2012 KNMEIGP 03/26/2012 KNMEIGP 03/26/2012
		AADT DATE AADT TYPE RDWY SECTION AVG "D" FACTOR AVG.30TH HI.HR.TRAFFIC / ADT SECTION AVERAGE T FACTOR SECTION AVERAGE ADT	1 - FINAL ESTIMATE FROM SURVEY 54.3 9 5.4 17200	DA CD EA EA EA EA	C C C	KNMEIGP 03/26/2012 KNMEIGP 03/26/2012 KNMEIGP 03/26/2012 KNMEIGP 03/26/2012 KNMEIGP 03/26/2012
5.384		AADT DATE AADT TYPE RDWY SECTION AVG "D" FACTOR AVG.30TH HI.HR.TRAFFIC / ADT SECTION AVERAGE T FACTOR SECTION AVERAGE ADT AADT DATE	1 - FINAL ESTIMATE FROM SURVEY 54.3 9 5.4 17200 12/31/2011	DA CD EA EA EA DA	C C C C C	KNMEIGP 03/26/2012 KNMEIGP 03/26/2012 KNMEIGP 03/26/2012 KNMEIGP 03/26/2012 KNMEIGP 03/26/2012 KNMEIGP 03/26/2012
		AADT DATE AADT TYPE RDWY SECTION AVG "D" FACTOR AVG.30TH HI.HR.TRAFFIC / ADT SECTION AVERAGE T FACTOR SECTION AVERAGE ADT AADT DATE AADT TYPE	1 - FINAL ESTIMATE FROM SURVEY 54.3 9 5.4 17200 12/31/2011 1 - FINAL ESTIMATE FROM SURVEY	DA CD EA EA EA DA CD	C C C C C C	KNMEIGP 03/26/2012 KNMEIGP 03/26/2012 KNMEIGP 03/26/2012 KNMEIGP 03/26/2012 KNMEIGP 03/26/2012 KNMEIGP 03/26/2012 KNMEIGP 03/26/2012
		AADT DATE AADT TYPE RDWY SECTION AVG "D" FACTOR AVG.30TH HI.HR.TRAFFIC / ADT SECTION AVERAGE T FACTOR SECTION AVERAGE ADT AADT DATE AADT TYPE RDWY SECTION AVG "D" FACTOR	1 - FINAL ESTIMATE FROM SURVEY 54.3 9 5.4 17200 12/31/2011 1 - FINAL ESTIMATE FROM SURVEY 54.3	DA CD EA EA EA CA CD CD EA	C C C C C C	KNMEIGP 03/26/2012 KNMEIGP 03/26/2012 KNMEIGP 03/26/2012 KNMEIGP 03/26/2012 KNMEIGP 03/26/2012 KNMEIGP 03/26/2012 KNMEIGP 03/26/2012 KNMEIGP 03/26/2012
		AADT DATE AADT TYPE RDWY SECTION AVG "D" FACTOR AVG.30TH HI.HR.TRAFFIC / ADT SECTION AVERAGE T FACTOR SECTION AVERAGE ADT AADT DATE AADT TYPE RDWY SECTION AVG "D" FACTOR AVG.30TH HI.HR.TRAFFIC / ADT	1 - FINAL ESTIMATE FROM SURVEY 54.3 9 5.4 17200 12/31/2011 1 - FINAL ESTIMATE FROM SURVEY 54.3 9	DA CD EA EA EA CD CD EA	C C C C C C C	KNMEIGP 03/26/2012 KNMEIGP 03/26/2012 KNMEIGP 03/26/2012 KNMEIGP 03/26/2012 KNMEIGP 03/26/2012 KNMEIGP 03/26/2012 KNMEIGP 03/26/2012 KNMEIGP 03/26/2012 KNMEIGP 03/26/2012
		AADT DATE AADT TYPE RDWY SECTION AVG "D" FACTOR AVG.30TH HI.HR.TRAFFIC / ADT SECTION AVERAGE T FACTOR SECTION AVERAGE ADT AADT DATE AADT TYPE RDWY SECTION AVG "D" FACTOR AVG.30TH HI.HR.TRAFFIC / ADT SECTION AVERAGE T FACTOR	1 - FINAL ESTIMATE FROM SURVEY 54.3 9 5.4 17200 12/31/2011 1 - FINAL ESTIMATE FROM SURVEY 54.3 9 5.4	DA CD EA EA EA CD EA CD EA EA	C C C C C C C C	KNMEIGP 03/26/2012 KNMEIGP 03/26/2012 KNMEIGP 03/26/2012 KNMEIGP 03/26/2012 KNMEIGP 03/26/2012 KNMEIGP 03/26/2012 KNMEIGP 03/26/2012 KNMEIGP 03/26/2012 KNMEIGP 03/26/2012 KNMEIGP 03/26/2012
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5.384	6.202	AADT DATE AADT TYPE RDWY SECTION AVG "D" FACTOR AVG.30TH HI.HR.TRAFFIC / ADT SECTION AVERAGE T FACTOR SECTION AVERAGE ADT AADT DATE AADT TYPE RDWY SECTION AVG "D" FACTOR AVG.30TH HI.HR.TRAFFIC / ADT SECTION AVERAGE T FACTOR SECTION AVERAGE ADT AADT DATE AADT TYPE RDWY SECTION AVG "D" FACTOR SECTION AVERAGE ADT AADT DATE AADT TYPE RDWY SECTION AVG "D" FACTOR AVG.30TH HI.HR.TRAFFIC / ADT	1 - FINAL ESTIMATE FROM SURVEY 54.3 9 5.4 17200 12/31/2011 1 - FINAL ESTIMATE FROM SURVEY 54.3 9 5.4 11400 12/31/2011 1 - FINAL ESTIMATE FROM SURVEY 54.3 9	DA CD EA EA DA CD EA CD EA EA CD EA CD EA EA		KNMEIGP 03/26/2012
5.384	6.202	AADT DATE AADT TYPE RDWY SECTION AVG "D" FACTOR AVG.30TH HI.HR.TRAFFIC / ADT SECTION AVERAGE T FACTOR SECTION AVERAGE ADT AADT DATE AADT TYPE RDWY SECTION AVG "D" FACTOR AVG.30TH HI.HR.TRAFFIC / ADT SECTION AVERAGE T FACTOR SECTION AVERAGE ADT AADT DATE AADT TYPE RDWY SECTION AVG "D" FACTOR	1 - FINAL ESTIMATE FROM SURVEY 54.3 9 5.4 17200 12/31/2011 1 - FINAL ESTIMATE FROM SURVEY 54.3 9 5.4 11400 12/31/2011 1 - FINAL ESTIMATE FROM SURVEY 54.3	DA CD EA EA EA DA CD EA EA CD EA CD EA CD EA		KNMEIGP 03/26/2012

Appendix C

Traffic Counts

FINANCE NO: 413761-1

LOCATION CODE: 1

COUNT LOCATION: #1 - On SR-514, 1.097 Mil. W. of SR-5 (UVL) (Site: 700127 MP 5.6420)

TYPE OF COUNT:

48 Hour Classification Count

TIME OF COUNT:

Start Date: 9/23/2014 Start Time: Midnight End Date: 9/25/2014 End Time: Midnight

**VOLUMES:** 

Peak Hour Start Time: 7:30 AM
Average Daily: 11,832 Average Peak Hour: 1,168
Daily Truck Avg: 616 Max Hour Truck Avg: 71
Peak Hour Truck Avg: 63

TRAVEL CHARACTERISTICS:

K MEASURED D MEASURED

K= 9.9% D= 67.5%

 T Max Hour
 6.0%
 T daily
 5.2%

 T med (max)
 3.9%
 T med Daily
 3.5%

 T heavy (max)
 2.1%
 T heavy Daily
 1.7%

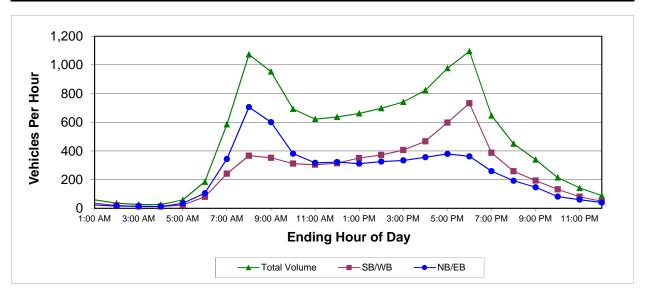
T Peak Hour 5.4%

T med Peak Hour 3.6% Axle Factor 0.99

T heavy Peak Hour 1.8%

FINANCE NO: 413761-1 LOCATION CODE: 1 COUNT LOCATION: #1 - On SR-514, 1.097 Mil. W. of SR-5 (UVL) (Site: 700

	HOURLY	HOURLY	TOTAL	DISTRIBUTION	DISTRIBUTION	
	VOLUME	VOLUME	VOLUME	PERCENT	PERCENT	TOTAL PERCENT
HOUR	DIRECTION	DIRECTION	BOTH	DIRECTION (NB	DIRECTION (SB	BOTH
ENDING AT	(NB OR EB)	(SB OR WB)	DIRECTIONS	OR EB)	OR WB)	DIRECTIONS
1:00 AM	24	36	59	0.41%	0.58%	0.50%
2:00 AM	16	21	37	0.28%	0.34%	0.31%
3:00 AM	15	13	28	0.26%	0.20%	0.23%
4:00 AM	13	13	26	0.22%	0.21%	0.22%
5:00 AM	35	23	58	0.61%	0.38%	0.49%
6:00 AM	106	80	185	1.84%	1.30%	1.56%
7:00 AM	345	241	586	6.01%	3.95%	4.95%
8:00 AM	706	367	1,073	12.32%	6.01%	9.07%
9:00 AM	601	353	953	10.48%	5.78%	8.05%
10:00 AM	381	312	693	6.64%	5.11%	5.85%
11:00 AM	318	304	622	5.54%	4.98%	5.25%
12:00 PM	323	315	637	5.63%	5.15%	5.38%
1:00 PM	312	351	663	5.44%	5.75%	5.60%
2:00 PM	326	372	698	5.69%	6.10%	5.90%
3:00 PM	335	407	741	5.84%	6.66%	6.26%
4:00 PM	356	467	823	6.21%	7.64%	6.95%
5:00 PM	380	598	977	6.62%	9.79%	8.26%
6:00 PM	363	733	1,095	6.33%	12.00%	9.25%
7:00 PM	259	388	647	4.52%	6.36%	5.47%
8:00 PM	192	259	451	3.35%	4.24%	3.81%
9:00 PM	147	194	340	2.56%	3.17%	2.87%
10:00 PM	82	133	215	1.43%	2.17%	1.81%
11:00 PM	61	81	142	1.06%	1.33%	1.20%
12:00 AM	41	48	89	0.71%	0.79%	0.75%
TOTALS	5,730	6,103	11,832	100.0%	100.0%	100.0%



#### **ANNUAL VEHICLE CLASSIFICATION REPORT**

FINANCE NO: 413761-1

LOCATION CODE: 1

COUNT LOCATION: #1 - On SR-514, 1.097 Mil. W. of SR-5 (UVL) (Site: 700127 MP 5.6420)

Vehicle	Vehicle	Average Da	ily Statistics
Classification	Туре	Volume	Percentage
Class 1	Motorcycles	64	0.54%
Class 2	Cars	8,922	75.39%
Class 3	Pick-Ups & Vans	2,230	18.84%
Class 4	Buses	51	0.43%
Class 5	2 Axle, Single Unit Trucks	367	3.10%
Class 6	3 Axle, Single Unit Trucks	34	0.29%
Class 7	4 Axle, Single Unit Trucks	2	0.02%
Class 8	2 Axle Trctr with 1 or 2 Axle Trlr, 3 Axle Trctr with 1 Axle	84	0.71%
Class 9	3 Axle Tractor with 2 Axle Trailer	80	0.68%
Class 10	3 Axle Tractor with 3 Axle Trailer	0	0.00%
Class 11	5 Axle Multi Trailer	0	0.00%
Class 12	6 Axle Multi Trailer	0	0.00%
Class 13	7 or more Axles	0	0.00%
Class 14	Not Used	0	0.00%
Class 15	Other	0	0.00%
TOTALS		11,834	100.00%

**PROJECT** SR 514

LOCATION CODE 1

COUNT LOCATION Just West of Medplex Pkwy

GMB PROJECT NO.

TYPE OF COUNT:

24 HOUR VOLUME COUNT

TIME OF COUNT:

 Start Date
 3-Feb-15
 Start Time
 12:00 AM

 End Date
 4-Feb-15
 End Time
 12:00 AM

**VOLUMES:** 

**ADT** 19,895 **PEAK HOUR** 1,879

**PEAK END TIME** 5:30 PM

PEAK NB/EB MOVEMENT 768
PEAK SB/WB MOVEMENT 1,111

**MEASURED TRAVEL CHARACTERISTICS:** 

"Peak to Daily Ratio"

**K**= 9.44% **D**= 59.1%

PROJECT SR 514

LOCATION CODE 1

COUNT LOCATION Just West of Medplex Pkwy

GMB PROJECT NO. 0

	I					
	HOURLY	HOURLY	TOTAL	DISTRIBUTION	DISTRIBUTION	TOTAL
HOUR	VOLUME	VOLUME	VOLUMES	PERCENT	PERCENT	PERCENT
END	DIRECTION	DIRECTION	вотн	DIRECTION	DIRECTION	вотн
AT	(NB/EB)	(SB/WB)	DIRECTIONS	(NB/EB)	(SB/WB)	DIRECTIONS
01:00 AM	32	45	77	0.33%	0.44%	0.39%
02:00 AM	24	34	58	0.25%	0.34%	0.29%
03:00 AM	22	23	45	0.23%	0.23%	0.23%
04:00 AM	26	30	56	0.27%	0.30%	0.28%
05:00 AM	38	49	87	0.39%	0.48%	0.44%
06:00 AM	142	123	265	1.45%	1.22%	1.33%
07:00 AM	419	329	748	4.29%	3.25%	3.76%
08:00 AM	665	502	1,167	6.80%	4.96%	5.87%
09:00 AM	677	525	1,202	6.92%	5.19%	6.04%
10:00 AM	517	491	1,008	5.29%	4.85%	5.07%
11:00 AM	572	528	1,100	5.85%	5.22%	5.53%
12:00 PM	654	703	1,357	6.69%	6.95%	6.82%
01:00 PM	732	763	1,495	7.49%	7.54%	7.51%
02:00 PM	730	706	1,436	7.47%	6.98%	7.22%
03:00 PM	710	649	1,359	7.26%	6.41%	6.83%
04:00 PM	787	868	1,655	8.05%	8.58%	8.32%
05:00 PM	820	974	1,794	8.39%	9.63%	9.02%
06:00 PM	687	1,150	1,837	7.03%	11.37%	9.23%
07:00 PM	575	658	1,233	5.88%	6.50%	6.20%
08:00 PM	307	303	610	3.14%	2.99%	3.07%
09:00 PM	268	254	522	2.74%	2.51%	2.62%
10:00 PM	185	164	349	1.89%	1.62%	1.75%
11:00 PM	112	141	253	1.15%	1.39%	1.27%
12:00 AM	76	106	182	0.78%	1.05%	0.91%
TOTALS	9,777	10,118	19,895	100.00%	100.00%	100.00%

**PROJECT** SR 514

LOCATION CODE 2

COUNT LOCATION

GMB PROJECT NO.

Just West of Weber Rd

TYPE OF COUNT:

24 HOUR VOLUME COUNT

TIME OF COUNT:

 Start Date
 3-Feb-15
 Start Time
 12:00 AM

 End Date
 4-Feb-15
 End Time
 12:00 AM

**VOLUMES:** 

**ADT** 17,795 **PEAK HOUR** 1,632

**PEAK END TIME** 5:30 PM

PEAK NB/EB MOVEMENT 684
PEAK SB/WB MOVEMENT 948

**MEASURED TRAVEL CHARACTERISTICS:** 

"Peak to Daily Ratio"

**K**= 9.17% **D**= 58.1%

PROJECT SR 514

LOCATION CODE 2

COUNT LOCATION Just West of Weber Rd

GMB PROJECT NO.

	HOURLY	HOURLY	TOTAL	DISTRIBUTION	DISTRIBUTION	TOTAL
HOUR	VOLUME	VOLUME	VOLUMES	PERCENT	PERCENT	PERCENT
END	DIRECTION	DIRECTION	вотн	DIRECTION	DIRECTION	вотн
AT	(NB/EB)	(SB/WB)	<b>DIRECTIONS</b>	(NB/EB)	(SB/WB)	<b>DIRECTIONS</b>
01:00 AM	24	31	55	0.28%	0.34%	0.31%
02:00 AM	16	22	38	0.18%	0.24%	0.21%
03:00 AM	11	15	26	0.13%	0.16%	0.15%
04:00 AM	23	23	46	0.27%	0.25%	0.26%
05:00 AM	32	46	78	0.37%	0.50%	0.44%
06:00 AM	111	117	228	1.28%	1.28%	1.28%
07:00 AM	364	353	717	4.20%	3.86%	4.03%
08:00 AM	742	638	1,380	8.57%	6.98%	7.75%
09:00 AM	640	589	1,229	7.39%	6.45%	6.91%
10:00 AM	491	550	1,041	5.67%	6.02%	5.85%
11:00 AM	496	487	983	5.73%	5.33%	5.52%
12:00 PM	532	544	1,076	6.14%	5.96%	6.05%
01:00 PM	560	598	1,158	6.47%	6.55%	6.51%
02:00 PM	566	617	1,183	6.54%	6.75%	6.65%
03:00 PM	609	576	1,185	7.03%	6.31%	6.66%
04:00 PM	675	700	1,375	7.79%	7.66%	7.73%
05:00 PM	711	802	1,513	8.21%	8.78%	8.50%
06:00 PM	618	1,010	1,628	7.14%	11.06%	9.15%
07:00 PM	503	581	1,084	5.81%	6.36%	6.09%
08:00 PM	348	294	642	4.02%	3.22%	3.61%
09:00 PM	261	216	477	3.01%	2.36%	2.68%
10:00 PM	162	140	302	1.87%	1.53%	1.70%
11:00 PM	95	112	207	1.10%	1.23%	1.16%
12:00 AM	71	73	144	0.82%	0.80%	0.81%
TOTALS	8,661	9,134	17,795	100.00%	100.00%	100.00%

**PROJECT** SR 514

LOCATION CODE 3

COUNT LOCATION

GMB PROJECT NO.

Just East of Weber Rd

TYPE OF COUNT:

24 HOUR VOLUME COUNT

TIME OF COUNT:

 Start Date
 3-Feb-15
 Start Time
 12:00 AM

 End Date
 4-Feb-15
 End Time
 12:00 AM

**VOLUMES:** 

**ADT** 15,861 **PEAK HOUR** 1,484

**PEAK END TIME** 6:00 PM

PEAK NB/EB MOVEMENT 503
PEAK SB/WB MOVEMENT 981

**MEASURED TRAVEL CHARACTERISTICS:** 

"Peak to Daily Ratio"

**K**= 9.36% **D**= 66.1%

PROJECT SR 514

LOCATION CODE 3

COUNT LOCATION Just East of Weber Rd

GMB PROJECT NO. 0

HOUR	HOURLY VOLUME	HOURLY VOLUME	TOTAL VOLUMES	DISTRIBUTION PERCENT	DISTRIBUTION PERCENT	TOTAL PERCENT
END	DIRECTION	DIRECTION	BOTH	DIRECTION	DIRECTION	BOTH
AT	(NB/EB)	(SB/WB)	DIRECTIONS	(NB/EB)	(SB/WB)	DIRECTIONS
				/	/	
01:00 AM	20	29	49	0.26%	0.35%	0.31%
02:00 AM	15	21	36	0.20%	0.26%	0.23%
03:00 AM	8	13	21	0.10%	0.16%	0.13%
04:00 AM	21	18	39	0.27%	0.22%	0.25%
05:00 AM	31	37	68	0.40%	0.45%	0.43%
06:00 AM	136	117	253	1.77%	1.43%	1.60%
07:00 AM	388	305	693	5.06%	3.72%	4.37%
08:00 AM	722	537	1,259	9.41%	6.56%	7.94%
09:00 AM	606	477	1,083	7.90%	5.82%	6.83%
10:00 AM	447	465	912	5.83%	5.68%	5.75%
11:00 AM	450	416	866	5.87%	5.08%	5.46%
12:00 PM	463	479	942	6.03%	5.85%	5.94%
01:00 PM	473	529	1,002	6.17%	6.46%	6.32%
02:00 PM	487	555	1,042	6.35%	6.78%	6.57%
03:00 PM	532	533	1,065	6.93%	6.51%	6.71%
04:00 PM	573	642	1,215	7.47%	7.84%	7.66%
05:00 PM	590	748	1,338	7.69%	9.13%	8.44%
06:00 PM	503	981	1,484	6.56%	11.98%	9.36%
07:00 PM	429	533	962	5.59%	6.51%	6.07%
08:00 PM	277	261	538	3.61%	3.19%	3.39%
09:00 PM	225	201	426	2.93%	2.45%	2.69%
10:00 PM	134	122	256	1.75%	1.49%	1.61%
11:00 PM	85	100	185	1.11%	1.22%	1.17%
12:00 AM	57	70	127	0.74%	0.85%	0.80%
TOTALS	7,672	8,189	15,861	100.00%	100.00%	100.00%

**PROJECT** SR 514

LOCATION CODE 4

COUNT LOCATION Just West of US 1

GMB PROJECT NO.

TYPE OF COUNT:

24 HOUR VOLUME COUNT

TIME OF COUNT:

 Start Date
 3-Feb-15
 Start Time
 12:00 AM

 End Date
 4-Feb-15
 End Time
 12:00 AM

**VOLUMES:** 

**ADT** 14,069 **PEAK HOUR** 1,356

**PEAK END TIME** 5:30 PM

PEAK NB/EB MOVEMENT 473
PEAK SB/WB MOVEMENT 883

**MEASURED TRAVEL CHARACTERISTICS:** 

"Peak to Daily Ratio"

**K**= 9.64% **D**= 65.1%

PROJECT SR 514

LOCATION CODE 4

COUNT LOCATION Just West of US 1

GMB PROJECT NO. 0

	HOURLY	HOURLY	TOTAL	DISTRIBUTION	DISTRIBUTION	TOTAL
HOUR	VOLUME	VOLUME	VOLUMES	PERCENT	PERCENT	PERCENT
END	DIRECTION	DIRECTION	вотн	DIRECTION	DIRECTION	вотн
AT	(NB/EB)	(SB/WB)	<b>DIRECTIONS</b>	(NB/EB)	(SB/WB)	<b>DIRECTIONS</b>
01:00 AM	16	47	63	0.23%	0.67%	0.45%
02:00 AM	12	29	41	0.17%	0.42%	0.29%
03:00 AM	8	15	23	0.11%	0.22%	0.16%
04:00 AM	20	13	33	0.28%	0.19%	0.23%
05:00 AM	37	25	62	0.52%	0.36%	0.44%
06:00 AM	120	64	184	1.69%	0.92%	1.31%
07:00 AM	400	235	635	5.64%	3.37%	4.51%
08:00 AM	721	440	1,161	10.16%	6.31%	8.25%
09:00 AM	678	434	1,112	9.56%	6.22%	7.90%
10:00 AM	409	394	803	5.77%	5.65%	5.71%
11:00 AM	382	414	796	5.38%	5.94%	5.66%
12:00 PM	403	444	847	5.68%	6.37%	6.02%
01:00 PM	461	469	930	6.50%	6.72%	6.61%
02:00 PM	468	518	986	6.60%	7.43%	7.01%
03:00 PM	457	497	954	6.44%	7.13%	6.78%
04:00 PM	516	654	1,170	7.27%	9.38%	8.32%
05:00 PM	519	769	1,288	7.32%	11.03%	9.15%
06:00 PM	467	846	1,313	6.58%	12.13%	9.33%
07:00 PM	371	320	691	5.23%	4.59%	4.91%
08:00 PM	223	120	343	3.14%	1.72%	2.44%
09:00 PM	173	98	271	2.44%	1.41%	1.93%
10:00 PM	109	56	165	1.54%	0.80%	1.17%
11:00 PM	74	46	120	1.04%	0.66%	0.85%
12:00 AM	50	28	78	0.70%	0.40%	0.55%
TOTALS	7,094	6,975	14,069	100.00%	100.00%	100.00%

PROJECT Medplex Pkwy

LOCATION CODE 6

COUNT LOCATION

GMB PROJECT NO.

Just North of SR 514

TYPE OF COUNT:

24 HOUR VOLUME COUNT

TIME OF COUNT:

 Start Date
 3-Feb-15
 Start Time
 12:00 AM

 End Date
 4-Feb-15
 End Time
 12:00 AM

**VOLUMES:** 

**ADT** 2,679 **PEAK HOUR** 229

**PEAK END TIME** 2:15 PM

PEAK NB/EB MOVEMENT 114
PEAK SB/WB MOVEMENT 115

**MEASURED TRAVEL CHARACTERISTICS:** 

"Peak to Daily Ratio"

**K**= 8.55% **D**= 50.2%

PROJECT Medplex Pkwy

LOCATION CODE 6

COUNT LOCATION Just North of SR 514

GMB PROJECT NO. 0

HOUR END AT	HOURLY VOLUME DIRECTION (NB/EB)	HOURLY VOLUME DIRECTION (SB/WB)	TOTAL VOLUMES BOTH DIRECTIONS	DISTRIBUTION PERCENT DIRECTION (NB/EB)	DISTRIBUTION PERCENT DIRECTION (SB/WB)	TOTAL PERCENT BOTH DIRECTIONS
	(NB/EB)	(05/115)	DIRECTIONS	(115/25)	(05/115)	DIRECTIONS
01:00 AM	8	22	30	0.61%	1.60%	1.12%
02:00 AM	10	14	24	0.77%	1.02%	0.90%
03:00 AM	4	6	10	0.31%	0.44%	0.37%
04:00 AM	4	7	11	0.31%	0.51%	0.41%
05:00 AM	3	4	7	0.23%	0.29%	0.26%
06:00 AM	21	7	28	1.61%	0.51%	1.05%
07:00 AM	101	17	118	7.76%	1.23%	4.40%
08:00 AM	99	51	150	7.60%	3.70%	5.60%
09:00 AM	110	66	176	8.45%	4.79%	6.57%
10:00 AM	98	78	176	7.53%	5.66%	6.57%
11:00 AM	120	102	222	9.22%	7.41%	8.29%
12:00 PM	77	99	176	5.91%	7.19%	6.57%
01:00 PM	99	99	198	7.60%	7.19%	7.39%
02:00 PM	103	94	197	7.91%	6.83%	7.35%
03:00 PM	93	119	212	7.14%	8.64%	7.91%
04:00 PM	87	128	215	6.68%	9.30%	8.03%
05:00 PM	65	124	189	4.99%	9.01%	7.05%
06:00 PM	50	99	149	3.84%	7.19%	5.56%
07:00 PM	58	68	126	4.45%	4.94%	4.70%
08:00 PM	29	58	87	2.23%	4.21%	3.25%
09:00 PM	24	42	66	1.84%	3.05%	2.46%
10:00 PM	21	27	48	1.61%	1.96%	1.79%
11:00 PM	10	27	37	0.77%	1.96%	1.38%
12:00 AM	8	19	27	0.61%	1.38%	1.01%
TOTALS	1,302	1,377	2,679	100.00%	100.00%	100.00%

PROJECT Marie St

LOCATION CODE 7

COUNT LOCATION Just North of SR 514

GMB PROJECT NO.

TYPE OF COUNT:

24 HOUR VOLUME COUNT

TIME OF COUNT:

 Start Date
 12-Feb-15
 Start Time
 12:00 AM

 End Date
 13-Feb-15
 End Time
 12:00 AM

**VOLUMES:** 

**ADT** 231 **PEAK HOUR** 31

**PEAK END TIME** 10:45 AM

PEAK NB/EB MOVEMENT 13
PEAK SB/WB MOVEMENT 18

**MEASURED TRAVEL CHARACTERISTICS:** 

"Peak to Daily Ratio"

**K=** 13.42% **D=** 58.1%

PROJECT Marie St

LOCATION CODE 7

COUNT LOCATION Just North of SR 514

GMB PROJECT NO. 0

HOUR END AT	HOURLY VOLUME DIRECTION (NB/EB)	HOURLY VOLUME DIRECTION (SB/WB)	TOTAL VOLUMES BOTH DIRECTIONS	DISTRIBUTION PERCENT DIRECTION (NB/EB)	DISTRIBUTION PERCENT DIRECTION (SB/WB)	TOTAL PERCENT BOTH DIRECTIONS
			_			_
08:00 PM 09:00 PM 10:00 PM 11:00 PM	4 1 1 0	0 0 0	4 1 1 0	3.10% 0.78% 0.78% 0.00%	0.00% 0.00% 0.00% 0.00%	1.73% 0.43% 0.43% 0.00%
12:00 AM TOTALS	1 129	1 102	2 231	0.78% 100.00%	0.98% <b>100.00%</b>	0.87% <b>100.00%</b>

PROJECT Marie St

LOCATION CODE 8

COUNT LOCATION

GMB PROJECT NO.

Just South of SR 514

TYPE OF COUNT:

24 HOUR VOLUME COUNT

TIME OF COUNT:

 Start Date
 12-Feb-15
 Start Time
 12:00 AM

 End Date
 13-Feb-15
 End Time
 12:00 AM

**VOLUMES:** 

**ADT** 608 **PEAK HOUR** 53

**PEAK END TIME** 4:45 PM

PEAK NB/EB MOVEMENT 20
PEAK SB/WB MOVEMENT 33

**MEASURED TRAVEL CHARACTERISTICS:** 

"Peak to Daily Ratio"

**K**= 8.72% **D**= 62.3%

PROJECT Marie St

LOCATION CODE 8

COUNT LOCATION Just South of SR 514

GMB PROJECT NO. 0

	HOURLY	HOURLY	TOTAL	DISTRIBUTION	DISTRIBUTION	TOTAL
HOUR	VOLUME	VOLUME	VOLUMES	PERCENT	PERCENT	PERCENT
END	DIRECTION	DIRECTION	вотн	DIRECTION	DIRECTION	вотн
AT	(NB/EB)	(SB/WB)	DIRECTIONS	(NB/EB)	(SB/WB)	DIRECTIONS
01:00 AM	0	2	2	0.00%	0.70%	0.33%
02:00 AM	0	0	0	0.00%	0.00%	0.00%
03:00 AM	1	1	2	0.31%	0.35%	0.33%
04:00 AM	1	1	2	0.31%	0.35%	0.33%
05:00 AM	7	1	8	2.18%	0.35%	1.32%
06:00 AM	6	0	6	1.87%	0.00%	0.99%
07:00 AM	16	5	21	4.98%	1.74%	3.45%
08:00 AM	36	9	45	11.21%	3.14%	7.40%
09:00 AM	30	13	43	9.35%	4.53%	7.07%
10:00 AM	18	21	39	5.61%	7.32%	6.41%
11:00 AM	17	15	32	5.30%	5.23%	5.26%
12:00 PM	26	19	45	8.10%	6.62%	7.40%
01:00 PM	29	20	49	9.03%	6.97%	8.06%
02:00 PM	19	20	39	5.92%	6.97%	6.41%
03:00 PM	18	17	35	5.61%	5.92%	5.76%
04:00 PM	25	15	40	7.79%	5.23%	6.58%
05:00 PM	16	36	52	4.98%	12.54%	8.55%
06:00 PM	18	24	42	5.61%	8.36%	6.91%
07:00 PM	15	22	37	4.67%	7.67%	6.09%
08:00 PM	8	20	28	2.49%	6.97%	4.61%
09:00 PM	2	7	9	0.62%	2.44%	1.48%
10:00 PM	8	10	18	2.49%	3.48%	2.96%
11:00 PM	2	8	10	0.62%	2.79%	1.64%
12:00 AM	3	1	4	0.93%	0.35%	0.66%
TOTALS	321	287	608	100.00%	100.00%	100.00%

PROJECT Weber Road

LOCATION CODE 10

COUNT LOCATION South of SR 514

GMB PROJECT NO.

TYPE OF COUNT:

24 HOUR VOLUME COUNT

TIME OF COUNT:

 Start Date
 23-Sep-14
 Start Time
 12:00 AM

 End Date
 24-Sep-14
 End Time
 12:00 AM

**VOLUMES:** 

**ADT** 2,438 **PEAK HOUR** 217

**PEAK END TIME** 8:15 AM

PEAK NB/EB MOVEMENT 133
PEAK SB/WB MOVEMENT 84

**MEASURED TRAVEL CHARACTERISTICS:** 

"Peak to Daily Ratio"

**K**= 8.90% **D**= 61.3%

PROJECT Weber Road

LOCATION CODE 10

COUNT LOCATION South of SR 514
GMB PROJECT NO. 0

	HOURLY	HOURLY	TOTAL	DISTRIBUTION	DISTRIBUTION	TOTAL
HOUR	VOLUME	VOLUME	VOLUMES	PERCENT	PERCENT	PERCENT
END	DIRECTION	DIRECTION	вотн	DIRECTION	DIRECTION	вотн
AT	(NB/EB)	(SB/WB)	DIRECTIONS	(NB/EB)	(SB/WB)	<b>DIRECTIONS</b>
01:00 AM	5	8	13	0.43%	0.63%	0.53%
02:00 AM	5	4	9	0.43%	0.31%	0.37%
03:00 AM	0	1	1	0.00%	0.08%	0.04%
04:00 AM	3	2	5	0.26%	0.16%	0.21%
05:00 AM	24	13	37	2.07%	1.02%	1.52%
06:00 AM	38	6	44	3.28%	0.47%	1.80%
07:00 AM	76	19	95	6.56%	1.49%	3.90%
08:00 AM	144	71	215	12.42%	5.55%	8.82%
09:00 AM	101	65	166	8.71%	5.08%	6.81%
10:00 AM	67	49	116	5.78%	3.83%	4.76%
11:00 AM	84	55	139	7.25%	4.30%	5.70%
12:00 PM	59	57	116	5.09%	4.46%	4.76%
01:00 PM	65	65	130	5.61%	5.08%	5.33%
02:00 PM	47	78	125	4.06%	6.10%	5.13%
03:00 PM	50	63	113	4.31%	4.93%	4.63%
04:00 PM	50	107	157	4.31%	8.37%	6.44%
05:00 PM	62	127	189	5.35%	9.93%	7.75%
06:00 PM	63	146	209	5.44%	11.42%	8.57%
07:00 PM	66	107	173	5.69%	8.37%	7.10%
08:00 PM	66	73	139	5.69%	5.71%	5.70%
09:00 PM	45	80	125	3.88%	6.25%	5.13%
10:00 PM	16	40	56	1.38%	3.13%	2.30%
11:00 PM	7	30	37	0.60%	2.35%	1.52%
12:00 AM	16	13	29	1.38%	1.02%	1.19%
TOTALS	1,159	1,279	2,438	100.00%	100.00%	100.00%

PROJECT Corey Road

LOCATION CODE 11

COUNT LOCATION South of SR 514

GMB PROJECT NO.

TYPE OF COUNT:

24 HOUR VOLUME COUNT

TIME OF COUNT:

 Start Date
 23-Sep-14
 Start Time
 12:00 AM

 End Date
 24-Sep-14
 End Time
 12:00 AM

**VOLUMES:** 

**ADT** 2,105 **PEAK HOUR** 195

**PEAK END TIME** 8:15 AM

PEAK NB/EB MOVEMENT 146
PEAK SB/WB MOVEMENT 49

**MEASURED TRAVEL CHARACTERISTICS:** 

"Peak to Daily Ratio"

**K**= 9.26% **D**= 74.9%

PROJECT Corey Road

LOCATION CODE 11

COUNT LOCATION South of SR 514
GMB PROJECT NO. 0

HOUR END	HOURLY VOLUME DIRECTION	HOURLY VOLUME DIRECTION	TOTAL VOLUMES BOTH	DISTRIBUTION PERCENT DIRECTION	DISTRIBUTION PERCENT DIRECTION	TOTAL PERCENT BOTH
AT	(NB/EB)	(SB/WB)	DIRECTIONS	(NB/EB)	(SB/WB)	DIRECTIONS
01:00 AM	3	8	11	0.29%	0.75%	0.52%
02:00 AM	1	6	7	0.10%	0.56%	0.33%
03:00 AM	1	1	2	0.10%	0.09%	0.10%
04:00 AM	0	0	0	0.00%	0.00%	0.00%
05:00 AM	4	2	6	0.38%	0.19%	0.29%
06:00 AM	25	3	28	2.40%	0.28%	1.33%
07:00 AM	63	19	82	6.05%	1.79%	3.90%
MA 00:80	144	43	187	13.82%	4.05%	8.88%
09:00 AM	111	39	150	10.65%	3.67%	7.13%
10:00 AM	86	43	129	8.25%	4.05%	6.13%
11:00 AM	67	49	116	6.43%	4.61%	5.51%
12:00 PM	55	60	115	5.28%	5.64%	5.46%
01:00 PM	68	85	153	6.53%	8.00%	7.27%
02:00 PM	61	79	140	5.85%	7.43%	6.65%
03:00 PM	63	51	114	6.05%	4.80%	5.42%
04:00 PM	55	75	130	5.28%	7.06%	6.18%
05:00 PM	47	111	158	4.51%	10.44%	7.51%
06:00 PM	55	131	186	5.28%	12.32%	8.84%
07:00 PM	48	70	118	4.61%	6.59%	5.61%
08:00 PM	29	71	100	2.78%	6.68%	4.75%
09:00 PM	24	59	83	2.30%	5.55%	3.94%
10:00 PM	13	34	47	1.25%	3.20%	2.23%
11:00 PM	12	11	23	1.15%	1.03%	1.09%
12:00 AM	7	13	20	0.67%	1.22%	0.95%
TOTALS	1,042	1,063	2,105	100.00%	100.00%	100.00%

**PROJECT** Corey Road

LOCATION CODE 12

COUNT LOCATION North of SR 514

GMB PROJECT NO.

TYPE OF COUNT:

24 HOUR VOLUME COUNT

TIME OF COUNT:

 Start Date
 23-Sep-14
 Start Time
 12:00 AM

 End Date
 24-Sep-14
 End Time
 12:00 AM

**VOLUMES:** 

**ADT** 634 **PEAK HOUR** 61

PEAK END TIME 7:15 PM

PEAK NB/EB MOVEMENT 30
PEAK SB/WB MOVEMENT 31

**MEASURED TRAVEL CHARACTERISTICS:** 

"Peak to Daily Ratio"

**K=** 9.62% **D=** 50.8%

PROJECT Corey Road

LOCATION CODE 12

COUNT LOCATION North of SR 514
GMB PROJECT NO. 0

HOUR	HOURLY VOLUME	HOURLY VOLUME	TOTAL VOLUMES	DISTRIBUTION PERCENT	DISTRIBUTION PERCENT	TOTAL PERCENT
END	DIRECTION	DIRECTION	BOTH	DIRECTION	DIRECTION	ВОТН
AT	(NB/EB)	(SB/WB)	DIRECTIONS	(NB/EB)	(SB/WB)	DIRECTIONS
711	(112/22)	(02,112)		()	(02/112)	
01:00 AM	0	0	0	0.00%	0.00%	0.00%
02:00 AM	1	0	1	0.36%	0.00%	0.16%
03:00 AM	1	0	1	0.36%	0.00%	0.16%
04:00 AM	0	2	2	0.00%	0.56%	0.32%
05:00 AM	2	4	6	0.73%	1.11%	0.95%
06:00 AM	2	7	9	0.73%	1.95%	1.42%
07:00 AM	4	17	21	1.45%	4.74%	3.31%
08:00 AM	8	38	46	2.91%	10.58%	7.26%
09:00 AM	18	22	40	6.55%	6.13%	6.31%
10:00 AM	17	23	40	6.18%	6.41%	6.31%
11:00 AM	10	26	36	3.64%	7.24%	5.68%
12:00 PM	9	18	27	3.27%	5.01%	4.26%
01:00 PM	15	14	29	5.45%	3.90%	4.57%
02:00 PM	21	21	42	7.64%	5.85%	6.62%
03:00 PM	17	24	41	6.18%	6.69%	6.47%
04:00 PM	19	18	37	6.91%	5.01%	5.84%
05:00 PM	27	24	51	9.82%	6.69%	8.04%
06:00 PM	29	25	54	10.55%	6.96%	8.52%
07:00 PM	28	25	53	10.18%	6.96%	8.36%
08:00 PM	23	28	51	8.36%	7.80%	8.04%
09:00 PM	9	12	21	3.27%	3.34%	3.31%
10:00 PM	12	6	18	4.36%	1.67%	2.84%
11:00 PM	1	3	4	0.36%	0.84%	0.63%
12:00 AM	2	2	4	0.73%	0.56%	0.63%
TOTALS	275	359	634	100.00%	100.00%	100.00%

GMB Engineers & Planners, Inc.

County Brevard City Malabar

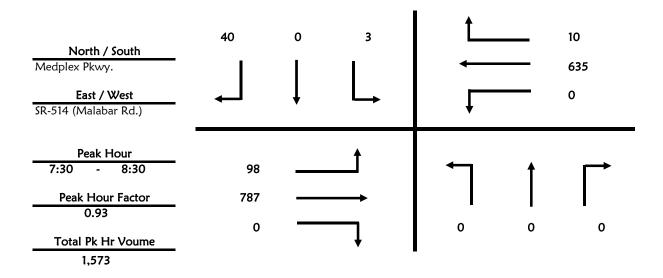
Intersection Medplex Pkwy. & SR-514 (Malabar Rd.)

Date February 3, 2015 All Vehicles

**Time Period** 7:00 to 9:00

				Northbound				Southbound	
Tim	Time Period		Left	Through	Right	_	Left	Through	Right
7:00	-	7:15	0	0	0	Ī	0	0	11
7:15	-	7:30	0	0	0		1	0	15
7:30	-	7:45	0	0	0		0	0	10
7:45	-	8:00	0	0	0		0	0	8
8:00	-	8:15	0	0	0		1	0	10
8:15	-	8:30	0	0	0		2	0	12
8:30	-	8:45	0	0	0		4	0	12
8:45	-	9:00	0	0	0	_     _	0	0	6
		-	0	0	0		8	0	84

				Eastbound			Westbound				
Tim	Time Period		Left	Through	Right		Left	Through	Right		
7:00	-	7:15	13	143	0	Ī	0	117	3		
7:15	-	7:30	24	164	0		0	150	0		
7:30	-	7:45	22	156	0		0	165	0		
7:45	-	8:00	29	221	0		0	163	0		
8:00	-	8:15	22	227	0		0	154	6		
8:15	-	8:30	25	183	0		0	153	4		
8:30	-	8:45	11	132	0		0	138	2		
8:45	-	9:00	24	137	0	1_	0	135	5		
			170	1,363	0		0	1,175	20		



GMB Engineers & Planners, Inc.

County

Brevard

City

Malabar

Intersection

Medplex Pkwy.

& SR-514 (Malabar Rd.)

Date

February 3, 2015

to

Time Period

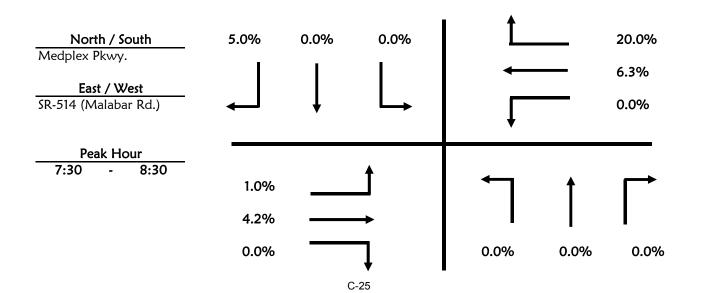
7:00

9:00

**Trucks** 

					Southbound				
Tim	ne Per	iod	Left	Through	Right	Le	eft	Through	Right
7:00	-	7:15	0	0	0	(	0	0	1
7:15	-	7:30	0	0	0		0	0	0
7:30	-	7:45	0	0	0		0	0	0
7:45	-	8:00	0	0	0		0	0	0
8:00	-	8:15	0	0	0		0	0	0
8:15	-	8:30	0	0	0		0	0	2
8:30	-	8:45	0	0	0		Э	0	2
8:45	-	9:00	0	0	0		0	0	0

				Eastbound		Westbound				
Tim	ne Per	iod	Left	Through	Right	Left	Through	Right		
7:00	-	7:15	0	3	0	<b>I</b> 0	1	1		
7:15	-	7:30	0	7	0	0	7	0		
7:30	-	7:45	0	11	0	0	4	0		
7:45	-	8:00	0	4	0	0	16	0		
8:00	-	8:15	0	10	0	0	4	1		
8:15	-	8:30	1	8	0	0	16	1		
8:30	-	8:45	0	5	0	0	9	0		
8:45	-	9:00	0	8	0	0	11	1		



GMB Engineers & Planners, Inc.

County

Brevard

City

Malabar

Intersection

Medplex Pkwy.

& SR-514 (Malabar Rd.)

Date

February 3, 2015

Time Period

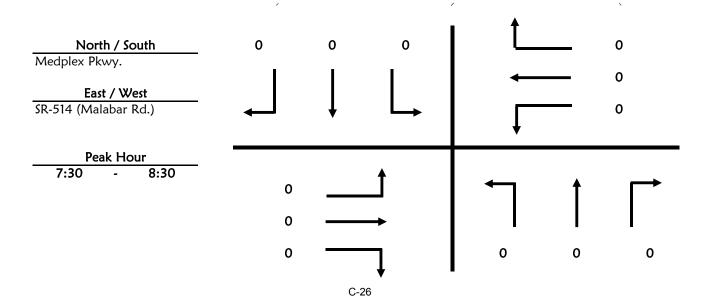
7:00

to 9:00

U-Turn & RTOR

				Northbound			Southbound			
Tin	ne Peri	iod	Left	Through			Right			
7:00	-	7:15	0	0	0	I 0	0	0		
7:15	-	7:30	0	0	0	0	0	0		
7:30	-	7:45	0	0	0	0	0	0		
7:45	-	8:00	0	0	0	0	0	0		
8:00	-	8:15	0	0	0	0	0	0		
8:15	-	8:30	0	0	0	0	0	0		
8:30	-	8:45	0	0	0	0	0	0		
8:45	-	9:00	0	0	0	0	0	0		

				Eastbound		Westbound				
Tin	Time Period		Left	Through	Right	Le	ft	Through	Right	
7:00	_	7:15	0	0	0	1 0	)	0	0	
7:15	-	7:30	Ō	0	Ō		)	0	0	
7:30	-	7:45	0	0	0		)	0	0	
7:45	-	8:00	0	0	0		)	0	0	
8:00	-	8:15	0	0	0		)	0	0	
8:15	-	8:30	0	0	0	C	)	0	0	
8:30	-	8:45	0	0	0		)	0	0	
8:45	-	9:00	0	0	0		)	0	0	



GMB Engineers & Planners, Inc.

County Brevard City Malabar

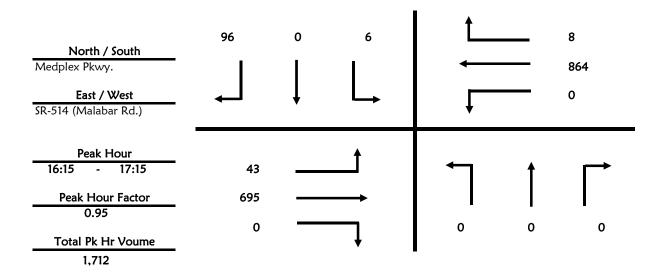
Intersection Medplex Pkwy. & SR-514 (Malabar Rd.)

Date February 3, 2015 All Vehicles

**Time Period** 16:00 to 18:00

				Northbound				Southbound	Southbound				
Tim	Time Period		Left	Through	Right	_	Left	Through	Right				
16:00	-	16:15	0	0	0	Ī	4	0	15				
16:15	-	16:30	0	0	0		2	0	25				
16:30	-	16:45	0	0	0		1	0	21				
16:45	-	17:00	0	0	0		2	0	20				
17:00	-	17:15	0	0	0		1	0	30				
17:15	-	17:30	0	0	0		0	0	13				
17:30	-	17:45	0	0	0		3	0	15				
17:45	-	18:00	0	0	0	_   _	1	0	17				
			0	0	0		14	0	156				

				Eastbound			Westbound	
Tim	Time Period		Left	Through	Right	Left	Through	Right
16:00	-	16:15	13	160	0	0	188	3
16:15	-	16:30	13	184	0	0	191	1
16:30	-	16:45	6	160	0	0	224	4
16:45	-	17:00	11	173	0	0	222	2
17:00	-	17:15	13	178	0	0	227	1
17:15	-	17:30	8	143	0	0	223	1
17:30	-	17:45	12	167	0	0	236	0
17:45	-	18:00	11	119	0	0	244	4
		_	87	1,284	0	 0	1,755	16



GMB Engineers & Planners, Inc.

County

Brevard

City

Malabar

Intersection

Medplex Pkwy.

& SR-514 (Malabar Rd.)

Date

February 3, 2015

to

Time Period

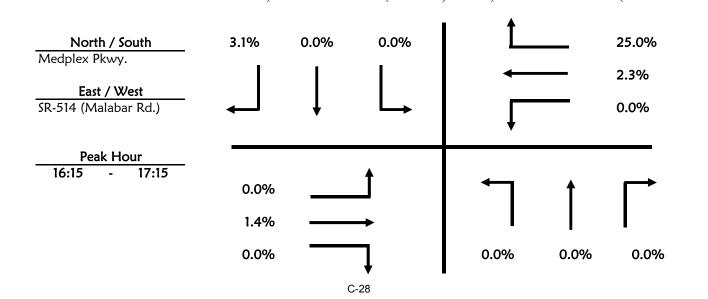
16:00

18:00

Trucks

				Northbound				Southbound	
Tim	e Per	riod	Left	Through	Right		Left	Through	Right
16:00	-	16:15	0	0	0	Ī	0	0	0
16:15	-	16:30	0	0	0		0	0	1
16:30	-	16:45	0	0	0		0	0	0
16:45	-	17:00	0	0	0		0	0	1
17:00	-	17:15	0	0	0		0	0	1
17:15	-	17:30	0	0	0		0	0	1
17:30	-	17:45	0	0	0		0	0	0
17:45	-	18:00	0	0	0		0	0	0

				Eastbound		Westbound				
Tim	e Per	riod	Left	Through	Right	Left	Through	Right		
16:00	-	16:15	0	2	0	I 0	3	0		
16:15	-	16:30	0	1	0	0	6	0		
16:30	-	16:45	0	3	0	0	5	0		
16:45	-	17:00	0	4	0	0	5	1		
17:00	-	17:15	0	2	0	0	4	1		
17:15	-	17:30	0	0	0	0	5	0		
17:30	-	17:45	0	1	0	0	2	0		
17:45	-	18:00	1	1	0	0	3	0		



GMB Engineers & Planners, Inc.

County

Brevard

City

Malabar

Intersection

Medplex Pkwy.

& SR-514 (Malabar Rd.)

Date

February 3, 2015

Time Period

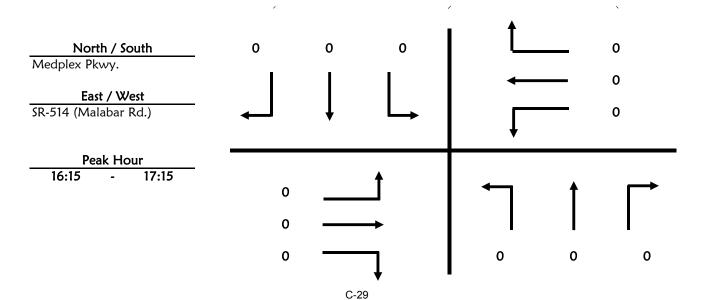
16:00

to 18:00

**U-Turn & RTOR** 

				Northbound			Southbound			
Tim	Time Period		Left	Through	Right	Left	Through	Right		
16:00	-	16:15	0	0	0	I 0	0	0		
16:15	-	16:30	0	0	0	0	0	0		
16:30	-	16:45	0	0	0	0	0	0		
16:45	-	17:00	0	0	0	0	0	0		
17:00	-	17:15	0	0	0	0	0	0		
17:15	-	17:30	0	0	0	0	0	0		
17:30	-	17:45	0	0	0	0	0	0		
17:45	-	18:00	0	0	0	0	0	0		

				Eastbound	Westbound				
Tin	Time Period		Left	Through	Right	Left	Through	Right	
16:00	_	16:15	0	0	0	0	0	0	
16:15	-	16:30	Ō	Ō	Ö	Ö	Ö	Ö	
16:30	-	16:45	0	0	0	0	0	0	
16:45	-	17:00	0	0	0	0	0	0	
17:00	-	17:15	0	0	0	0	0	0	
17:15	-	17:30	0	0	0	0	0	0	
17:30	-	17:45	0	0	0	0	0	0	
17:45	-	18:00	0	0	0	0	0	0	



GMB Engineers & Planners, Inc.

County Brevard City Malabar

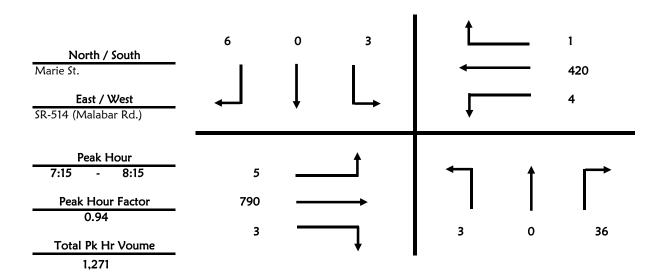
Intersection Marie St. & SR-514 (Malabar Rd.)

Date February 3, 2015 All Vehicles

Time Period 7:00 to 9:00

				Northbound			Southbound				
Tim	Time Period		Left	Through	Right		Left	Through	Right		
7:00	-	7:15	0	0	7	Ī	0	0	0		
7:15	-	7:30	2	0	6		1	0	2		
7:30	-	7:45	1	0	11		0	0	1		
7:45	-	8:00	0	0	10		1	0	1		
8:00	-	8:15	0	0	9		1	0	2		
8:15	-	8:30	0	0	4		0	0	0		
8:30	-	8:45	1	0	2		1	0	2		
8:45	-	9:00	3	1	4	_	0	0	2		
			7	1	53		4	0	10		

				Eastbound				Westbound	
Tim	Time Period		Left	Through	Right		Left	Through	Right
7:00	-	7:15	0	138	1		0	81	0
7:15	-	7:30	1	181	3		0	76	0
7:30	-	7:45	1	193	0		0	132	0
7:45	-	8:00	1	210	0		1	115	0
8:00	-	8:15	2	206	0		3	97	1
8:15	-	8:30	1	155	2		5	93	0
8:30	-	8:45	1	146	2		4	82	2
8:45	-	9:00	0	105	2	1_	2	102	1
		_	7	1,334	10	_	15	778	4



GMB Engineers & Planners, Inc.

County

Brevard

City

Malabar

Intersection

Marie St.

& SR-514 (Malabar Rd.)

Date

February 3, 2015

to

Time Period

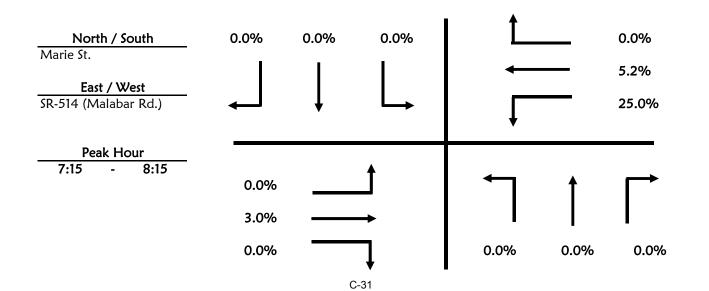
7:00

9:00

Trucks

				Northbound		Southbound			
Tim	ne Per	iod	Left	Through	Right	Left	Through	Right	
7:00	-	7:15	0	0	0	0	0	0	
7:15	-	7:30	0	0	0	0	0	0	
7:30	-	7:45	0	0	0	0	0	0	
7:45	-	8:00	0	0	0	0	0	0	
8:00	-	8:15	0	0	0	0	0	0	
8:15	-	8:30	0	0	0	0	0	0	
8:30	-	8:45	0	0	0	0	0	0	
8:45	-	9:00	0	0	0	0	0	0	

				Eastbound		Westbound			
Tim	ne Per	iod	Left	Through	Right	Left	Through	Right	
7:00	-	7:15	0	9	0	I 0	5	0	
7:15	-	7:30	0	6	0	0	2	0	
7:30	-	7:45	0	7	0	0	12	0	
7:45	-	8:00	0	7	0	0	1	0	
8:00	-	8:15	0	4	0	1	7	0	
8:15	-	8:30	0	2	0	1	3	0	
8:30	-	8:45	0	2	0	0	2	1	
8:45	-	9:00	0	3	0	0	2	0	



GMB Engineers & Planners, Inc.

County

Brevard

City

Malabar

Intersection

Marie St.

& SR-514 (Malabar Rd.)

Date

February 3, 2015

Time Period

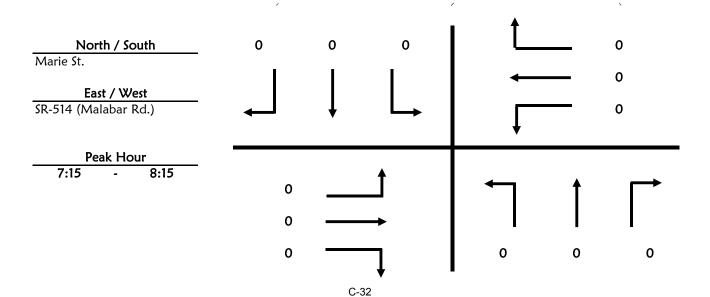
7:00

to 9:00

U-Turn & RTOR

				Northbound			Southbound			
Time Period		Left	Through	Right	Left	Through	Right			
7:00	-	7:15	0	0	0	<b>I</b> 0	0	0		
7:15	-	7:30	0	0	0	0	0	0		
7:30	-	7:45	0	0	0	0	0	0		
7:45	-	8:00	0	0	0	0	0	0		
8:00	-	8:15	0	0	0	0	0	0		
8:15	-	8:30	0	0	0	0	0	0		
8:30	-	8:45	0	0	0	0	0	0		
8:45	-	9:00	0	0	0	0	0	0		

				Eastbound			Westbound			
Tin	Time Period		Left	Through	Right	Left	Through	Right		
7:00	_	7:15	0	0	0	I 0	0	0		
7:15	-	7:30	Ö	Ō	Ö	0	Ö	Ö		
7:30	-	7:45	0	0	0	0	0	0		
7:45	-	8:00	0	0	0	0	0	0		
8:00	-	8:15	0	0	0	0	0	0		
8:15	-	8:30	0	0	0	0	0	0		
8:30	-	8:45	0	0	0	0	0	0		
8:45	-	9:00	0	0	0	0	0	0		



GMB Engineers & Planners, Inc.

County Brevard City Malabar

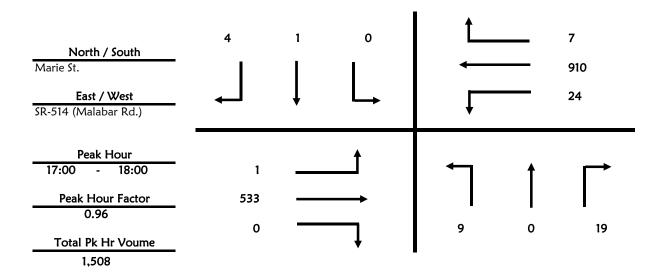
Intersection Marie St. & SR-514 (Malabar Rd.)

Date February 3, 2015 All Vehicles

**Time Period** 16:00 to 18:00

				Northbound			Southbound			
Tim	Time Period		Left	Through	Right		Left	Through	Right	
16:00	-	16:15	0	1	4	ĺ	2	0	1	
16:15	-	16:30	0	0	3		0	1	1	
16:30	-	16:45	1	0	3		1	1	2	
16:45	-	17:00	0	0	4		1	1	0	
17:00	-	17:15	4	0	6		0	1	1	
17:15	-	17:30	4	0	4		0	0	2	
17:30	-	17:45	1	0	5		0	0	0	
17:45	-	18:00	0	0	4	_	0	0	1	
			10	1	33		4	4	8	

				Eastbound				Westbound	
Time	Time Period		Left	Through	Right		Left	Through	Right
16:00	-	16:15	0	130	1		7	173	1
16:15	-	16:30	2	139	0		12	166	0
16:30	-	16:45	2	114	0		7	183	0
16:45	-	17:00	2	102	0		9	161	0
17:00	-	17:15	0	144	0		3	226	3
17:15	-	17:30	1	135	0		6	239	0
17:30	-	17:45	0	131	0		8	224	2
17:45	-	18:00	0	123	0		7	221	2
		-	7	1,018	1	_	59	1,593	8



GMB Engineers & Planners, Inc.

County

Brevard

City

Malabar

Intersection

Marie St.

& SR-514 (Malabar Rd.)

Date

February 3, 2015

to

Time Period

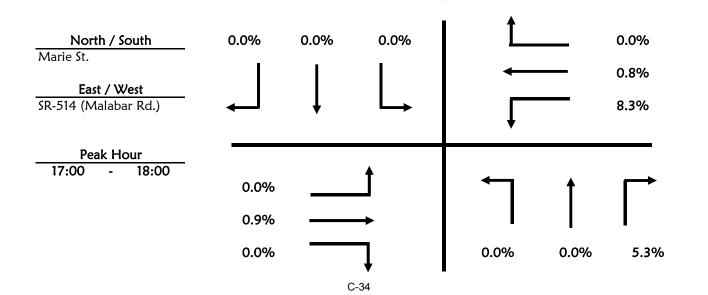
16:00

18:00

**Trucks** 

				Northbound				Southbound				
Tim	ne Pei	riod	Left	Through	Right		Left	Through	Right			
16:00	-	16:15	0	1	0	1	0	0	0			
16:15	-	16:30	0	0	0		0	0	0			
16:30	-	16:45	1	0	0		1	0	0			
16:45	-	17:00	0	0	0		0	0	0			
17:00	-	17:15	0	0	0		0	0	0			
17:15	-	17:30	0	0	0		0	0	0			
17:30	-	17:45	0	0	1		0	0	0			
17:45	-	18:00	0	0	0		0	0	0			

				Eastbound		Westbound			
Tim	ie Pei	riod	Left	Through	Right	Left	Through	Right	
16:00	-	16:15	0	4	0	1	3	0	
16:15	-	16:30	0	5	0	1	7	0	
16:30	-	16:45	0	2	0	0	2	0	
16:45	-	17:00	0	0	0	1	4	0	
17:00	-	17:15	0	3	0	0	5	0	
17:15	-	17:30	0	1	0	2	0	0	
17:30	-	17:45	0	1	0	0	1	0	
17:45	-	18:00	0	0	0	0	1	0	



GMB Engineers & Planners, Inc.

County

Brevard

City

Malabar

Intersection

Marie St.

& SR-514 (Malabar Rd.)

Date

February 3, 2015

Time Period

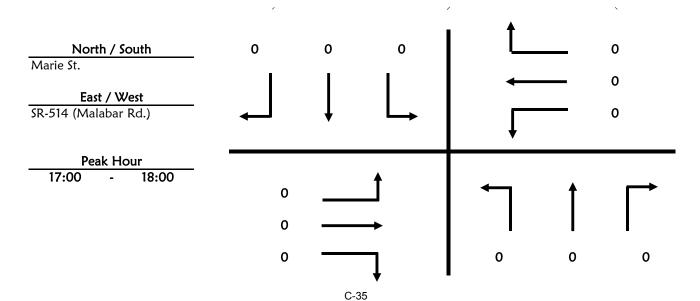
16:00

to 18:00

U-Turn & RTOR

				Northbound		Southbound			
Time Period		Left	Through	Right	Left	Through	Right		
16:00	-	16:15	0	0	0	I 0	0	0	
16:15	-	16:30	0	0	0	0	0	0	
16:30	-	16:45	0	0	0	0	0	0	
16:45	-	17:00	0	0	0	0	0	0	
17:00	-	17:15	0	0	0	0	0	0	
17:15	-	17:30	0	0	0	0	0	0	
17:30	-	17:45	0	0	0	0	0	0	
17:45	-	18:00	0	0	0	0	0	0	

				Eastbound		Westbound			
Time Period		Left	Through	Right	Left	Through	Right		
16:00	_	16:15	0	0	0	0	0	0	
16:15	-	16:30	0	0	0	0	0	0	
16:30	-	16:45	0	0	0	0	0	0	
16:45	-	17:00	0	0	0	0	0	0	
17:00	-	17:15	0	0	0	0	0	0	
17:15	-	17:30	0	0	0	0	0	0	
17:30	-	17:45	0	0	0	0	0	0	
17:45	-	18:00	0	0	0	0	0	0	



GMB Engineers & Planners, Inc.

County Brevard City Malabar

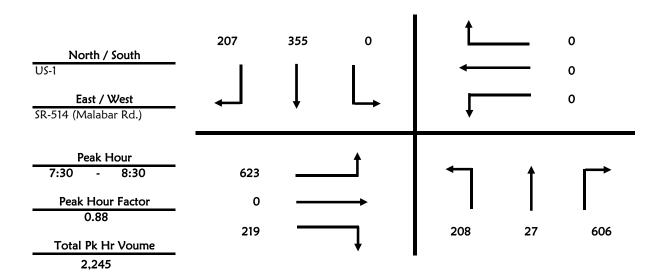
Intersection US-1 & SR-514 (Malabar Rd.)

Date February 3, 2015 All Vehicles

**Time Period** 7:00 to 9:00

				Northbound			Southbound			
Time Period			Left	Through	Right		Left	Through	Right	
7:00	-	7:15	35	6	98	Ī	0	69	42	
7:15	-	7:30	33	7	127		0	92	32	
7:30	-	7:45	62	8	197		0	110	58	
7:45	-	8:00	60	8	154		0	82	63	
8:00	-	8:15	41	6	139		0	89	37	
8:15	-	8:30	45	5	116		0	74	49	
8:30	-	8:45	32	5	114		0	89	48	
8:45	-	9:00	40	6	108	_	0	73	53	
			348	51	1,053		0	678	382	

				Eastbound		Westbound			
Time Period			Left	Through	Right	Left	Through	Right	
7:00	-	7:15	89	0	44	0	0	0	
7:15	-	7:30	96	0	39	0	0	0	
7:30	-	7:45	147	0	56	0	0	0	
7:45	-	8:00	170	0	71	0	0	0	
8:00	-	8:15	161	0	48	0	0	0	
8:15	-	8:30	145	0	44	0	0	0	
8:30	-	8:45	113	0	21	0	0	0	
8:45	-	9:00	69	0	16	0	0	0	
		•	990	0	339	0	0	0	



GMB Engineers & Planners, Inc.

County

Brevard

City

Malabar

Intersection

US-1

& SR-514 (Malabar Rd.)

Date

February 3, 2015

Time Period

7:00

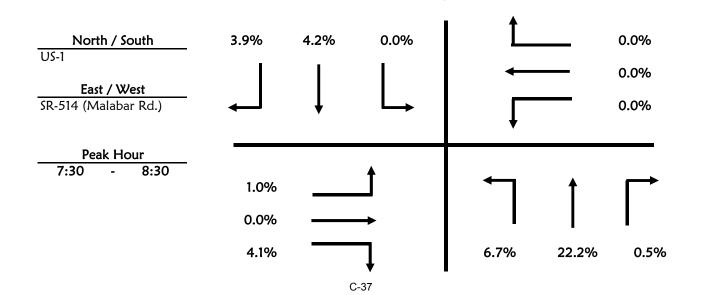
to

9:00

**Trucks** 

				Northbound				Southbound			
Time Period		Left	Through	Right	1	.eft	Through	Right			
7:00	-	7:15	3	2	0	1	0	1	1		
7:15	-	7:30	4	2	1		0	2	0		
7:30	-	7:45	7	1	1		0	5	4		
7:45	-	8:00	0	2	0		0	2	2		
8:00	-	8:15	5	2	1		0	7	2		
8:15	-	8:30	2	1	1		0	1	0		
8:30	-	8:45	3	0	0		0	4	1		
8:45	-	9:00	0	1	0		0	6	0		

				Eastbound			Westbound			
Tim	Time Period		Left	Through	Right	Left	Through	Right		
7:00	-	7:15	2	0	4	<b>I</b> 0	0	0		
7:15	-	7:30	2	0	3	0	0	0		
7:30	-	7:45	1	0	4	0	0	0		
7:45	-	8:00	4	0	1	0	0	0		
8:00	-	8:15	1	0	4	0	0	0		
8:15	-	8:30	0	0	0	0	0	0		
8:30	-	8:45	0	0	1	0	0	0		
8:45	-	9:00	2	0	0	0	0	0		



GMB Engineers & Planners, Inc.

County

Brevard

City

Malabar

Intersection

US-1

& SR-514 (Malabar Rd.)

Date

February 3, 2015

Time Period

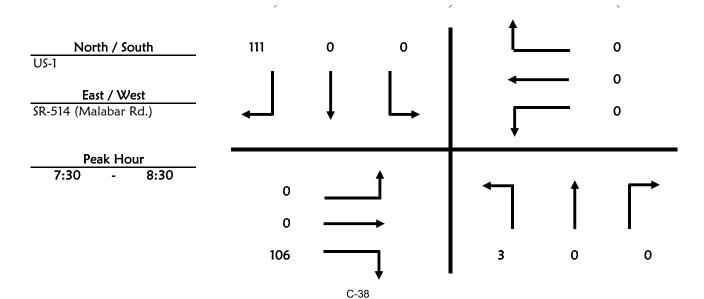
7:00

to 9:00

U-Turn & RTOR

				Northbound		Southbound			
Tin	ne Peri	iod	Left	Through	Right	Left	Through	Right	
7:00	-	7:15	0	0	0	<b>I</b> 0	0	15	
7:15	-	7:30	0	0	0	0	0	13	
7:30	-	7:45	0	0	0	0	0	26	
7:45	-	8:00	1	0	0	0	0	34	
8:00	-	8:15	1	0	0	0	0	20	
8:15	-	8:30	1	0	0	0	0	31	
8:30	-	8:45	0	0	0	0	0	22	
8:45	-	9:00	0	0	0	0	0	26	

				Eastbound		Westbound			
Time Period		Left	Through	Right	Left	Through	Right		
7:00	-	7:15	0	0	19	0	0	0	
7:15	-	7:30	0	0	17	0	0	0	
7:30	-	7:45	0	0	21	0	0	0	
7:45	-	8:00	0	0	37	0	0	0	
8:00	-	8:15	0	0	22	0	0	0	
8:15	-	8:30	0	0	26	0	0	0	
8:30	-	8:45	0	0	10	0	0	0	
8:45	-	9:00	0	0	9	0	0	0	



GMB Engineers & Planners, Inc.

County Brevard City Malabar

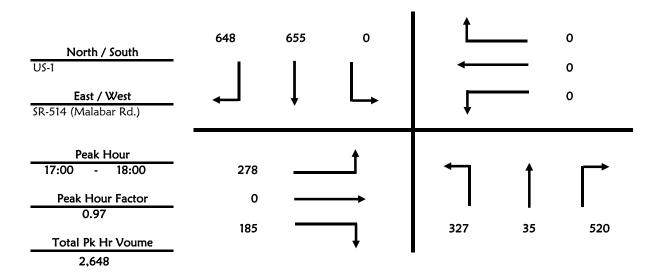
Intersection US-1 & SR-514 (Malabar Rd.)

Date February 3, 2015 All Vehicles

**Time Period** 16:00 to 18:00

				Northbound			Southbound			
Tim	Time Period		Left	Through	Right	Left	Through	Right		
16:00	-	16:15	55	6	95	0	115	88		
16:15	-	16:30	61	6	97	0	135	106		
16:30	-	16:45	85	8	130	0	156	108		
16:45	-	17:00	53	7	108	0	158	119		
17:00	-	17:15	75	8	132	0	163	172		
17:15	-	17:30	73	9	124	0	168	169		
17:30	-	17:45	94	9	134	0	160	156		
17:45	-	18:00	85	9	130	0	164	151		
		_	581	62	950	0	1,219	1,069		

				Eastbound			Westbound			
Time	Time Period		Left	Through	Right	Left	Through	Right		
16:00	-	16:15	70	0	40	0	0	0		
16:15	-	16:30	86	0	45	0	0	0		
16:30	-	16:45	67	0	34	0	0	0		
16:45	-	17:00	69	0	46	0	0	0		
17:00	-	17:15	75	0	58	0	0	0		
17:15	-	17:30	60	0	38	0	0	0		
17:30	-	17:45	68	0	48	0	0	0		
17:45	-	18:00	75	0	41	0	0	0		
		-	570	0	350	0	0	0		



GMB Engineers & Planners, Inc.

County

Brevard

City

Malabar

Intersection

US-1

& SR-514 (Malabar Rd.)

Date

February 3, 2015

Time Period

16:00

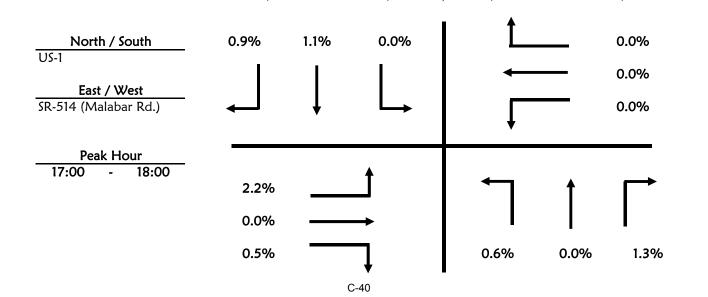
to

18:00

Trucks

			Northbound				Southbound			
Time Period		Left	Through	Right	_	Left	Through	Right		
16:00	-	16:15	1	0	4	1	0	4	4	
16:15	-	16:30	3	0	2		0	2	2	
16:30	-	16:45	1	0	0		0	3	1	
16:45	-	17:00	2	0	1		0	0	2	
17:00	-	17:15	2	0	3		0	0	1	
17:15	-	17:30	0	0	1		0	4	2	
17:30	-	17:45	0	0	3		0	1	0	
17:45	-	18:00	0	0	0		0	2	3	

				Eastbound			Westbound			
Tim	Time Period		Left	Through	Right	Left	Through	Right		
16:00	-	16:15	4	0	0	<b>I</b> 0	0	0		
16:15	-	16:30	2	0	2	0	0	0		
16:30	-	16:45	2	0	1	0	0	0		
16:45	-	17:00	1	0	0	0	0	0		
17:00	-	17:15	3	0	0	0	0	0		
17:15	-	17:30	1	0	1	0	0	0		
17:30	-	17:45	1	0	0	0	0	0		
17:45	-	18:00	1	0	0	0	0	0		



GMB Engineers & Planners, Inc.

County

Brevard

City

18:00

Malabar

Intersection

US-1

& SR-514 (Malabar Rd.)

Date

February 3, 2015

Time Period

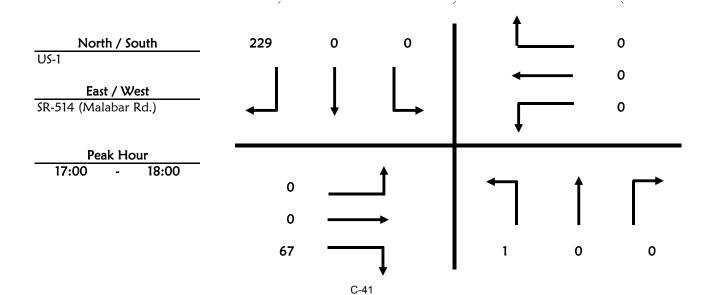
16:00

to

U-Turn & RTOR

				Southbound				
Tin	ne Per	iod	Left	Through	Right	Left	Through	Right
16:00	-	16:15	0	0	0	<b>I</b> 0	0	25
16:15	-	16:30	2	0	0	0	0	30
16:30	-	16:45	0	0	0	0	0	23
16:45	-	17:00	0	0	0	0	0	36
17:00	-	17:15	1	0	0	0	0	55
17:15	-	17:30	0	0	0	0	0	49
17:30	-	17:45	0	0	0	0	0	69
17:45	-	18:00	0	0	0	0	0	56

				Eastbound		Westbound			
Time Period		Left	Through	Right	Left	Through	Right		
16:00	-	16:15	0	0	25	О	0	0	
16:15	-	16:30	0	0	18	0	0	0	
16:30	-	16:45	0	0	13	0	0	0	
16:45	-	17:00	0	0	29	0	0	0	
17:00	-	17:15	0	0	21	0	0	0	
17:15	-	17:30	0	0	14	0	0	0	
17:30	-	17:45	0	0	13	0	0	0	
17:45	-	18:00	0	0	19	0	0	0	



GMB Engineers & Planners, Inc.

County Brevard City 0

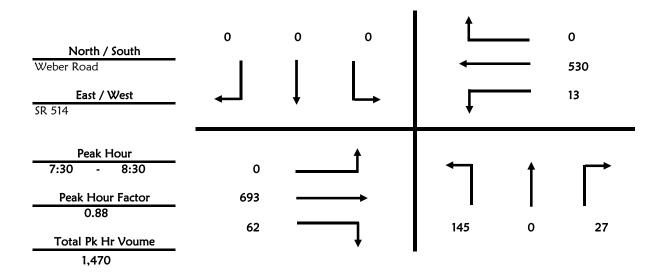
**Intersection** Weber Road & SR 514

Date September 23, 2014 All Vehicles

**Time Period** 7:00 to 9:00

				Northbound				Southbound	
Tim	Time Period		Left	Through	Right		Left	Through	Right
7:00	-	7:15	22	0	4	Ī	0	0	0
7:15	-	7:30	40	0	6		0	0	0
7:30	-	7:45	49	0	7		0	0	0
7:45	-	8:00	35	0	11		0	0	0
8:00	-	8:15	32	0	5		0	0	0
8:15	-	8:30	29	0	4		0	0	0
8:30	-	8:45	12	0	6		0	0	0
8:45	-	9:00	27	0	4	_	0	0	0
		-	246	0	47		0	0	0

				Eastbound			Westbound	
Tim	Time Period		Left	Through	Right	Left	Through	Right
7:00	-	7:15	0	111	5	2	85	0
7:15	-	7:30	0	137	9	0	100	0
7:30	-	7:45	0	200	11	1	148	0
7:45	-	8:00	0	193	15	4	137	0
8:00	-	8:15	0	164	20	4	111	0
8:15	-	8:30	0	136	16	4	134	0
8:30	-	8:45	0	120	14	3	98	0
8:45	-	9:00	0	111	18	1	101	0
		•	0	1,172	108	19	914	0



GMB Engineers & Planners, Inc.

County

Brevard

City

0

Intersection

Weber Road

& SR 514

Date

September 23, 2014

Time Period

7:00

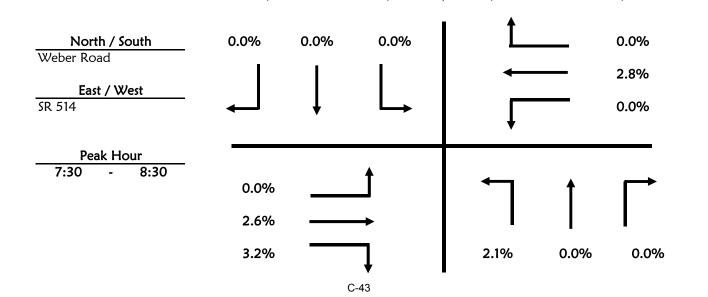
to

9:00

**Trucks** 

				Northbound		Southbound				
Tim	ne Per	iod	Left	Through	Right	Left	Through	Right		
7:00	-	7:15	0	0	0	0	0	0		
7:15	-	7:30	1	0	0	0	0	0		
7:30	-	7:45	0	0	0	0	0	0		
7:45	-	8:00	2	0	0	0	0	0		
8:00	-	8:15	1	0	0	0	0	0		
8:15	-	8:30	0	0	0	0	0	0		
8:30	-	8:45	1	0	0	0	0	0		
8:45	-	9:00	1	0	0	0	0	0		

				Eastbound				Westbound			
Tim	ne Per	iod	Left	Through	Right		Left	Through	Right		
7:00	-	7:15	0	4	0	ı	0	3	0		
7:15	-	7:30	0	3	0		0	0	0		
7:30	-	7:45	0	1	0		0	4	0		
7:45	-	8:00	0	4	0		0	4	0		
8:00	-	8:15	0	5	1		0	2	0		
8:15	-	8:30	0	8	1		0	5	0		
8:30	-	8:45	0	3	0		0	5	0		
8:45	-	9:00	0	5	0		0	6	0		



GMB Engineers & Planners, Inc.

County

Brevard

City 0

Intersection

Weber Road

& SR 514

Date

September 23, 2014

Time Period

7:00

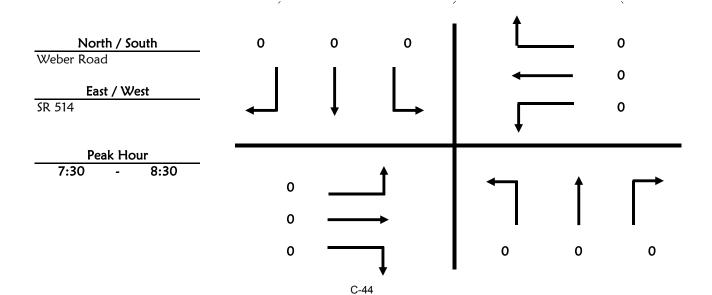
to

9:00

U-Turn & RTOR

				Northbound		Southbound			
Tin	ne Peri	iod	Left	Through	Right	Left	Through	Right	
7:00	-	7:15	0	0	0	<b>I</b> 0	0	0	
7:15	-	7:30	0	0	0	0	0	0	
7:30	-	7:45	0	0	0	0	0	0	
7:45	-	8:00	0	0	0	0	0	0	
8:00	-	8:15	0	0	0	0	0	0	
8:15	-	8:30	0	0	0	0	0	0	
8:30	-	8:45	0	0	0	0	0	0	
8:45	-	9:00	0	0	0	0	0	0	

				Eastbound		Westbound				
Tin	ne Peri	iod	Left	Through	Right	Left	Through	Right		
7:00	-	7:15	0	0	0	l 0	0	0		
7:15	-	7:30	0	0	0	0	0	0		
7:30	-	7:45	0	0	0	0	0	0		
7:45	-	8:00	0	0	0	0	0	0		
8:00	-	8:15	0	0	0	0	0	0		
8:15	-	8:30	0	0	0	0	0	0		
8:30	-	8:45	0	0	0	0	0	0		
8:45	-	9:00	0	0	0	0	0	0		



GMB Engineers & Planners, Inc.

County Brevard City 0

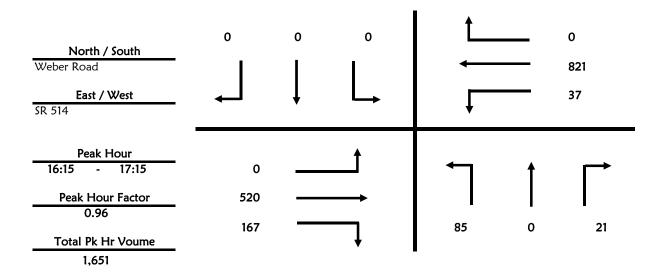
**Intersection** Weber Road & SR 514

Date September 23, 2014 All Vehicles

**Time Period** 16:00 to 18:00

				Northbound			Southbound			
Tim	Time Period		Left	Through	Right		Left	Through	Right	
16:00	-	16:15	31	0	4		0	0	0	
16:15	-	16:30	18	0	5		0	0	0	
16:30	-	16:45	22	0	5		0	0	0	
16:45	-	17:00	23	0	5		0	0	0	
17:00	-	17:15	22	0	6		0	0	0	
17:15	-	17:30	8	0	2		0	0	0	
17:30	-	17:45	23	0	4		0	0	0	
17:45	-	18:00	10	0	1	_	0	0	0	
		_	157	0	32		0	0	0	

				Eastbound				Westbound	
Tim	Time Period		Left	Through	Right		Left	Through	Right
16:00	-	16:15	0	117	33	I	3	114	0
16:15	-	16:30	0	136	55		12	204	0
16:30	-	16:45	0	132	49		7	207	0
16:45	-	17:00	0	130	24		7	210	0
17:00	-	17:15	0	122	39		11	200	0
17:15	-	17:30	0	95	21		8	184	0
17:30	-	17:45	0	68	17		3	189	0
17:45	-	18:00	0	72	25		4	180	0
		•	0	872	263		55	1,488	0



GMB Engineers & Planners, Inc.

County

Brevard

City

18:00

0

Intersection

Weber Road

& SR 514

Date

September 23, 2014

Time Period

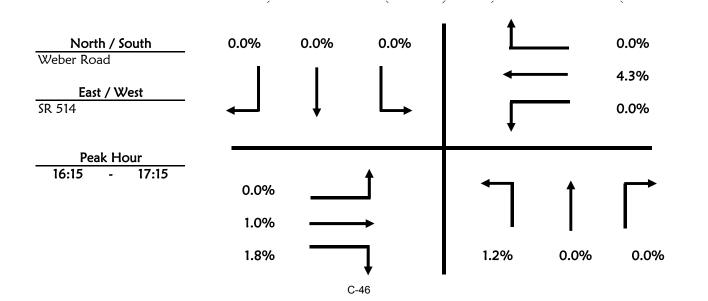
16:00

to

Trucks

					Southbound				
Tim	e Per	riod	Left	Through	Right	1	.eft	Through	Right
16:00	-	16:15	1	0	0		0	0	0
16:15	-	16:30	0	0	0		0	0	0
16:30	-	16:45	1	0	0		0	0	0
16:45	-	17:00	0	0	0		0	0	0
17:00	-	17:15	0	0	0		0	0	0
17:15	-	17:30	0	0	0		0	0	0
17:30	-	17:45	0	0	0		0	0	0
17:45	-	18:00	0	0	0		0	0	0

				Eastbound		Westbound			
Tim	ie Pei	riod	Left	Through	Right	Left	Through	Right	
16:00	-	16:15	0	0	0	I 0	2	0	
16:15	-	16:30	0	2	0	0	7	0	
16:30	-	16:45	0	1	2	0	12	0	
16:45	-	17:00	0	1	1	0	11	0	
17:00	-	17:15	0	1	0	0	5	0	
17:15	-	17:30	0	0	1	0	0	0	
17:30	-	17:45	0	0	0	0	0	0	
17:45	-	18:00	0	3	1	0	1	0	



GMB Engineers & Planners, Inc.

County

Brevard

City 0

Intersection

Weber Road

& SR 514

Date

September 23, 2014

Time Period

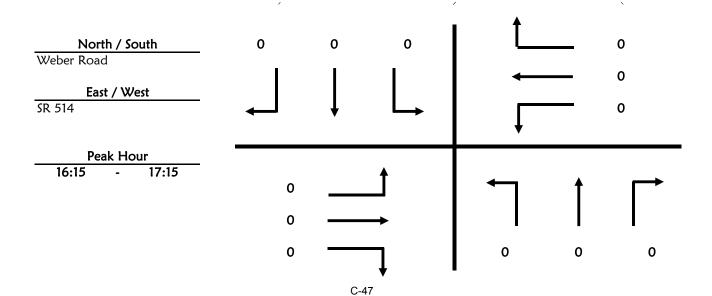
16:00

to 18:00

U-Turn & RTOR

				Northbound			Southbound	
Tim	ne Per	iod	Left	Through	Right	Left	Through	Right
16:00	_	16:15	0	0	0	I 0	0	0
16:15	-	16:30	0	0	0	0	0	0
16:30	-	16:45	0	0	0	0	0	0
16:45	-	17:00	0	0	0	0	0	0
17:00	-	17:15	0	0	0	0	0	0
17:15	-	17:30	0	0	0	0	0	0
17:30	-	17:45	0	0	0	0	0	0
17:45	-	18:00	0	0	0	0	0	0

				Eastbound		Westbound				
Tin	Time Period		Left	Through	Right	Left	Through	Right		
16:00	_	16:15	0	0	0	<b>I</b> 0	0	0		
16:15	-	16:30	Ō	Ō	Ö	0	Ō	Ö		
16:30	-	16:45	0	0	0	0	0	0		
16:45	-	17:00	0	0	0	0	0	0		
17:00	-	17:15	0	0	0	0	0	0		
17:15	-	17:30	0	0	0	0	0	0		
17:30	-	17:45	0	0	0	0	0	0		
17:45	-	18:00	0	0	0	0	0	0		



GMB Engineers & Planners, Inc.

County Brevard City 0

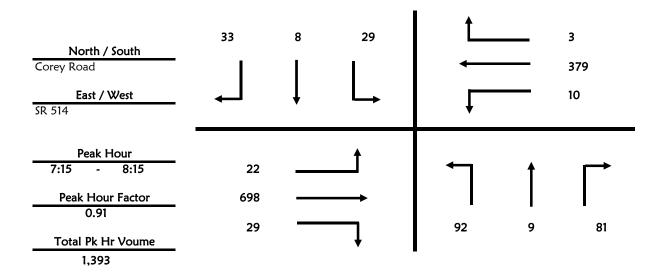
**Intersection** Corey Road & SR 514

Date September 23, 2014 All Vehicles

**Time Period** 7:00 to 9:00

				Northbound				Southbound	
Tim	Time Period		Left	Through	Right		Left	Through	Right
7:00	-	7:15	15	0	10	Ī	4	0	2
7:15	-	7:30	25	4	18		11	2	8
7:30	-	7:45	26	2	21		7	2	8
7:45	-	8:00	24	2	21		5	4	11
8:00	-	8:15	17	1	21		6	0	6
8:15	-	8:30	21	0	8		0	0	5
8:30	-	8:45	16	0	8		4	1	4
8:45	-	9:00	22	0	3	_   _	1	1	3
		_	166	9	110		38	10	47

				Eastbound			Westbound			
Tim	Time Period		Left	Through	Right	Left	Through	Right		
7:00	-	7:15	0	116	3	0	68	0		
7:15	-	7:30	7	143	5	4	88	0		
7:30	-	7:45	7	197	7	1	104	0		
7:45	-	8:00	4	198	9	1	97	2		
8:00	-	8:15	4	160	8	4	90	1		
8:15	-	8:30	2	131	9	2	85	0		
8:30	-	8:45	2	119	4	5	80	4		
8:45	-	9:00	2	114	7	5	88	0		
		•	28	1,178	52	22	700	7		



GMB Engineers & Planners, Inc.

County

Brevard

City

0

Intersection

Corey Road

& SR 514

Date

September 23, 2014

Time Period

7:00

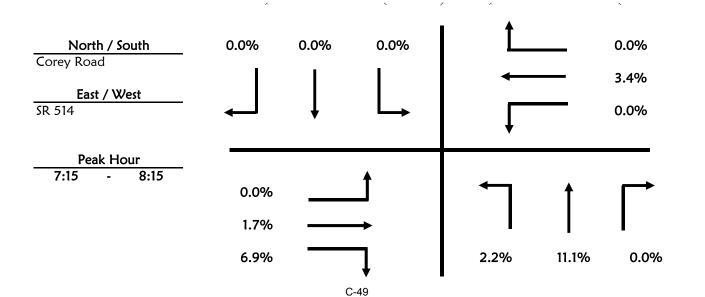
to

9:00

**Trucks** 

				Northbound				Southbound	
Tim	ne Per	iod	Left	Through	Right	_	Left	Through	Right
7:00	-	7:15	1	0	0	Ī	0	0	0
7:15	-	7:30	0	1	0		0	0	0
7:30	-	7:45	2	0	0		0	0	0
7:45	-	8:00	0	0	0		0	0	0
8:00	-	8:15	0	0	0		0	0	0
8:15	-	8:30	1	0	0		0	0	1
8:30	-	8:45	1	0	0		0	0	2
8:45	-	9:00	1	0	0		0	0	0

				Eastbound			Westbound			
Tim	ne Per	iod	Left	Through	Right	-	Left	Through	Right	
7:00	-	7:15	0	4	0	ĺ	0	3	0	
7:15	-	7:30	0	3	0		0	2	0	
7:30	-	7:45	0	2	0		0	4	0	
7:45	-	8:00	0	3	0		0	4	0	
8:00	-	8:15	0	4	2		0	3	0	
8:15	-	8:30	1	6	0		0	2	0	
8:30	-	8:45	0	4	0		0	5	0	
8:45	-	9:00	0	6	0		0	6	0	



GMB Engineers & Planners, Inc.

County

Brevard

City 0

Intersection

Corey Road

& SR 514

Date

September 23, 2014

Time Period

7:00

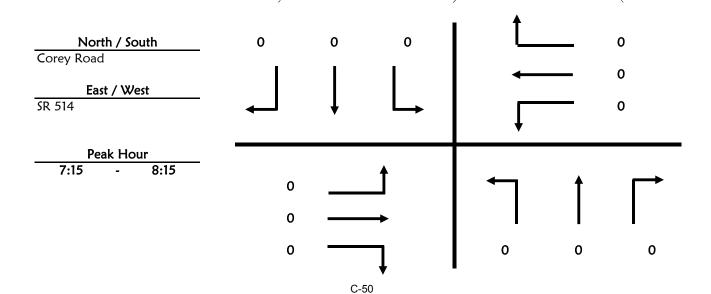
9:00

to

U-Turn & RTOR

				Northbound		Southbound			
Tin	ne Peri	iod	Left	Through	Right	•	Left	Through	Right
7:00	-	7:15	0	0	0	ı	0	0	0
7:15	-	7:30	0	0	0		0	0	0
7:30	-	7:45	0	0	0		0	0	0
7:45	-	8:00	0	0	0		0	0	0
8:00	-	8:15	0	0	0		0	0	0
8:15	-	8:30	0	0	0		0	0	0
8:30	-	8:45	0	0	0		0	0	0
8:45	-	9:00	0	0	0		0	0	0

				Eastbound				Westbound	
Tin	ne Peri	iod	Left	Through	Right	Le	Westbound Left Through  0 0 0 0 0 0 0 0		Right
7:00	_	7:15	0	0	0	1 0	)	0	0
7:15	-	7:30	Ō	0	Ō		)	0	0
7:30	-	7:45	0	0	0		)	0	0
7:45	-	8:00	0	0	0		)	0	0
8:00	-	8:15	0	0	0		)	0	0
8:15	-	8:30	0	0	0	C	)	0	0
8:30	-	8:45	0	0	0		)	0	0
8:45	-	9:00	0	0	0		)	0	0



GMB Engineers & Planners, Inc.

County Brevard City 0

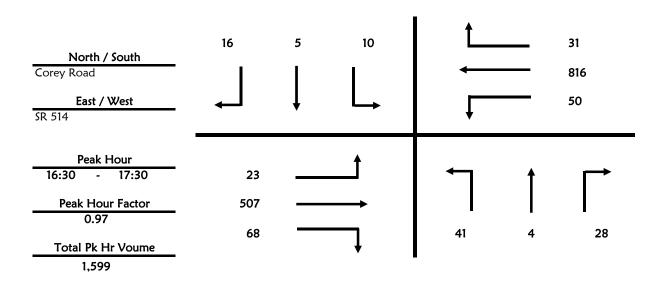
**Intersection** Corey Road & SR 514

Date September 23, 2014 All Vehicles

**Time Period** 16:00 to 18:00

				Northbound				Southbound	
Tim	e Per	iod	Left	Through	Right	_	Left	Through	Right
16:00	-	16:15	4	0	5	Ī	2	1	2
16:15	-	16:30	5	0	5		3	0	1
16:30	-	16:45	12	1	5		3	2	5
16:45	-	17:00	9	2	8		2	1	3
17:00	-	17:15	9	1	6		2	1	4
17:15	-	17:30	11	0	9		3	1	4
17:30	-	17:45	10	2	4		0	0	3
17:45	-	18:00	9	1	2	_	0	0	1
		_	69	7	44	_	15	6	23

				Eastbound			Westbound	
Time	Peri	od	Left	Through	Right	Left	Through	Right
16:00	-	16:15	2	98	20	9	127	0
16:15	-	16:30	6	89	14	9	140	3
16:30	-	16:45	5	135	15	12	202	9
16:45	-	17:00	7	145	13	12	198	8
17:00	-	17:15	5	118	13	15	191	7
17:15	-	17:30	6	109	27	11	225	7
17:30	-	17:45	3	54	11	9	191	1
17:45	-	18:00	8	52	12	13	161	5
			42	800	125	90	1,435	40



GMB Engineers & Planners, Inc.

County

Brevard

City

0

Intersection

Corey Road

& SR 514

Date

September 23, 2014

Time Period

16:00

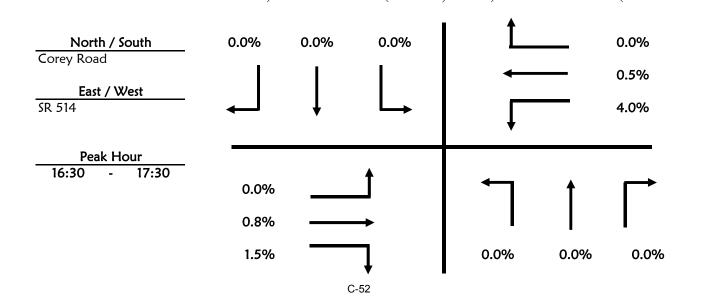
to

18:00

**Trucks** 

				Northbound			Southbound	
Tim	ne Per	riod	Left	Through	Right	Let	t Through	Right
16:00	-	16:15	0	0	0	I 0	0	0
16:15	-	16:30	0	0	0	0	0	0
16:30	-	16:45	0	0	0	0	0	0
16:45	-	17:00	0	0	0	0	0	0
17:00	-	17:15	0	0	0	0	0	0
17:15	-	17:30	0	0	0	0	0	0
17:30	-	17:45	1	0	0	0	0	0
17:45	-	18:00	0	0	0	0	0	0

				Eastbound					
Tim	ne Per	riod	Left	Through	Right		Left	Through	Right
16:00	-	16:15	0	0	0	Ī	1	2	0
16:15	-	16:30	0	1	0		0	3	0
16:30	-	16:45	0	2	0		1	2	0
16:45	-	17:00	0	2	1		1	2	0
17:00	-	17:15	0	0	0		0	0	0
17:15	-	17:30	0	0	0		0	0	0
17:30	-	17:45	0	0	0		0	1	0
17:45	-	18:00	0	3	0		0	2	0



GMB Engineers & Planners, Inc.

County

Brevard

City 0

Intersection

Corey Road

& SR 514

Date

September 23, 2014

Time Period

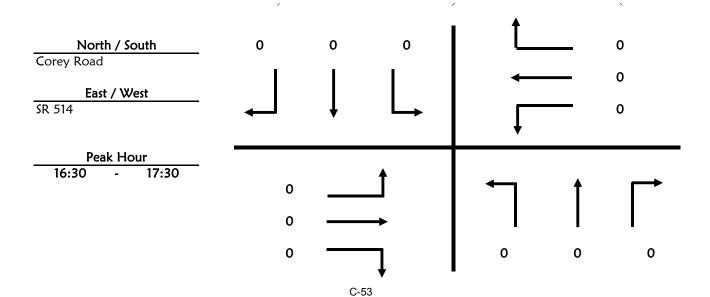
16:00

to 18:00

U-Turn & RTOR

				Northbound				Southbound	
Tin	ne Per	iod	Left	Through	Right	•	Left	Through	Right
16:00	-	16:15	0	0	0	ı	0	0	0
16:15	-	16:30	0	0	0		0	0	0
16:30	-	16:45	0	0	0		0	0	0
16:45	-	17:00	0	0	0		0	0	0
17:00	-	17:15	0	0	0		0	0	0
17:15	-	17:30	0	0	0		0	0	0
17:30	-	17:45	0	0	0		0	0	0
17:45	-	18:00	0	0	0		0	0	0

				Eastbound			Westbound	
Tin	ne Per	iod	Left	Through	Right	Left	Through	Right
16:00	_	16:15	0	0	0	<b>I</b> 0	0	0
16:15	-	16:30	Ō	Ō	Ö	0	Ō	Ö
16:30	-	16:45	0	0	0	0	0	0
16:45	-	17:00	0	0	0	0	0	0
17:00	-	17:15	0	0	0	0	0	0
17:15	-	17:30	0	0	0	0	0	0
17:30	-	17:45	0	0	0	0	0	0
17:45	-	18:00	0	0	0	0	0	0



#### Appendix D

FDOT Seasonal & Axle Adjustment Factors

2013 Peak Season Factor Category Report - Report Type: ALL Category: 7000 BREVARD COUNTYWIDE

Catego	DIY: /UUU BREVARD COUNTIWII	JE.	MOGEL 0 04
Wools	Datas	CE	MOCF: 0.94
Week	Dates	SF 	PSCF 
1	01/01/2013 - 01/05/2013	1.00	1.06
2	01/06/2013 - 01/12/2013	1.00	1.06
3	01/13/2013 - 01/19/2013	1.00	1.06
4	01/20/2013 - 01/26/2013	0.99	1.05
* 5	01/27/2013 - 02/02/2013	0.97	1.03
* 6	02/03/2013 - 02/09/2013	0.96	1.02
* 7	02/10/2013 - 02/16/2013	0.95	1.01
* 8	02/17/2013 - 02/23/2013	0.93	0.99
* 9	02/24/2013 - 03/02/2013	0.92	0.98
*10	03/03/2013 - 03/09/2013	0.92	0.98
*11	03/10/2013 - 03/16/2013	0.91	0.97
*12	03/17/2013 - 03/23/2013	0.90	0.96
*13	03/24/2013 - 03/30/2013	0.92	0.98
*14	03/31/2013 - 04/06/2013	0.93	0.99
*15	04/07/2013 - 04/13/2013	0.95	1.01
*16	04/14/2013 - 04/20/2013	0.97	1.03
*17	04/21/2013 - 04/27/2013	0.98	1.04
18	04/28/2013 - 05/04/2013	0.99	1.05
19	05/05/2013 - 05/11/2013	1.00	1.06
20	05/12/2013 - 05/18/2013	1.01	1.07
21	05/19/2013 - 05/25/2013	1.02	1.09
22	05/26/2013 - 06/01/2013	1.02	1.09
23	06/02/2013 - 06/08/2013	1.03	1.10
24	06/09/2013 - 06/15/2013	1.04	1.11
25	06/16/2013 - 06/22/2013	1.05	1.12
26	06/23/2013 - 06/29/2013	1.04	1.11
27	06/30/2013 - 07/06/2013	1.04	1.11
28	07/07/2013 - 07/13/2013	1.04	1.11
29	07/14/2013 - 07/20/2013	1.04	1.11
30	07/21/2013 - 07/27/2013	1.04	1.11
31	07/28/2013 - 08/03/2013	1.04	1.11
32	08/04/2013 - 08/10/2013	1.04	1.11
33	08/11/2013 - 08/17/2013	1.04	1.11
34	08/18/2013 - 08/24/2013	1.04	1.11
35	08/25/2013 - 08/31/2013	1.05	1.12
36	09/01/2013 - 09/07/2013	1.06	1.13
37	09/08/2013 - 09/14/2013	1.06	1.13
38	09/15/2013 - 09/21/2013	1.07	1.14
39	09/22/2013 - 09/28/2013	1.06	1.13
40	09/29/2013 - 10/05/2013	1.05	1.12
41 42	10/06/2013 - 10/12/2013	1.04	1.11
	10/13/2013 - 10/19/2013	1.03	1.10
43	10/20/2013 - 10/26/2013	1.03	1.10
44 45	10/27/2013 - 11/02/2013	1.03	1.10
46	11/03/2013 - 11/09/2013	1.03	1.10
46	11/10/2013 - 11/16/2013	1.03	1.10
47	11/17/2013 - 11/23/2013 11/24/2013 - 11/30/2013	1.03	1.10 1.09
48	12/01/2013 - 11/30/2013	1.02	1.09
50	12/01/2013 - 12/07/2013	1.01	1.07
51	12/15/2013 - 12/14/2013	1.00	1.07
52	12/15/2013 - 12/21/2013	1.00	1.06
52			
55	12/29/2013 - 12/31/2013	1.00	1.06

<sup>\*</sup> Peak Season

Page 1 of 2

County: 70 - BREVARD

Wee	ek Dates	7001	7002	7003		7004
_		BREVARD COUNTYWIDE	· · · · · · · · · · · · · · · · · · ·	SR514	SR46	
1	01/01/2013 - 01/05/20		0.81	0.96		0.97
2	01/06/2013 - 01/12/20		0.82	0.96		0.97
3	01/13/2013 - 01/19/20		0.82	0.96		0.97
4	01/20/2013 - 01/26/20		0.82	0.96		0.97
5	01/27/2013 - 02/02/20	13 0.99	0.82	0.96		0.97
6	02/03/2013 - 02/09/20	13 0.99	0.81	0.96		0.97
7	02/10/2013 - 02/16/20	13 0.99	0.81	0.96		0.97
8	02/17/2013 - 02/23/20	13 0.99	0.81	0.96		0.97
9	02/24/2013 - 03/02/20	13 0.99	0.81	0.96		0.97
10	03/03/2013 - 03/09/20	13 0.98	0.81	0.96		0.97
11	03/10/2013 - 03/16/20	13 0.98	0.81	0.96		0.97
12	03/17/2013 - 03/23/20	13 0.98	0.81	0.96		0.97
13	03/24/2013 - 03/30/20	13 0.98	0.81	0.96		0.97
14	03/31/2013 - 04/06/20	13 0.98	0.82	0.96		0.97
15	04/07/2013 - 04/13/20	13 0.98	0.82	0.96		0.97
16	04/14/2013 - 04/20/20		0.82	0.96		0.97
17			0.82	0.96		0.97
18	04/28/2013 - 05/04/20		0.82	0.96		0.97
19	05/05/2013 - 05/11/20		0.81	0.96		0.97
20	05/12/2013 - 05/18/20		0.81	0.96		0.97
21	05/19/2013 - 05/25/20	13 0.98	0.81	0.96		0.97
22	05/26/2013 - 06/01/20	13 0.98	0.82	0.96		0.97
23	06/02/2013 - 06/08/20	13 0.98	0.82	0.96		0.97
24	06/09/2013 - 06/15/20	13 0.98	0.82	0.96		0.97
25	06/16/2013 - 06/22/20	13 0.98	0.82	0.96		0.97
26	06/23/2013 - 06/29/20	13 0.98	0.82	0.96		0.97
27	06/30/2013 - 07/06/20	13 0.98	0.83	0.96		0.97
28	07/07/2013 - 07/13/20	13 0.98	0.83	0.96		0.97
29	07/14/2013 - 07/20/20	13 0.98	0.83	0.96		0.97
30	07/21/2013 - 07/27/20	13 0.98	0.83	0.96		0.97
31	07/28/2013 - 08/03/20		0.82	0.96		0.97
32	08/04/2013 - 08/10/20	13 0.98	0.82	0.96		0.97
33	08/11/2013 - 08/17/20		0.81	0.96		0.97
34	08/18/2013 - 08/24/20	13 0.98	0.81	0.96		0.97
35	08/25/2013 - 08/31/20	13 0.98	0.81	0.96		0.97
36	09/01/2013 - 09/07/20	13 0.98	0.80	0.96		0.97
37	09/08/2013 - 09/14/20		0.80	0.96		0.97
38	09/15/2013 - 09/21/20	13 0.98	0.80	0.96		0.97
39	09/22/2013 - 09/28/20		0.80	0.96		0.97
40	09/29/2013 - 10/05/20		0.80	0.96		0.97
	10/06/2013 - 10/12/20		0.80	0.96		0.97
	10/13/2013 - 10/19/20		0.80	0.96		0.97
43	10/20/2013 - 10/26/20		0.80	0.96		0.97
44	10/27/2013 - 11/02/20	13 0.98	0.81	0.96		0.97
45	11/03/2013 - 11/09/20		0.81	0.96		0.97
46			0.81	0.96		0.97
47	11/17/2013 - 11/23/20		0.81	0.96		0.97
48	11/24/2013 - 11/30/20		0.81	0.96		0.97
49	12/01/2013 - 12/07/20		0.81	0.96		0.97
50	12/08/2013 - 12/14/20		0.81	0.96		0.97
	12/15/2013 - 12/21/20		0.81	0.96		0.97
	12/22/2013 - 12/28/20		0.82	0.96		0.97
53	12/29/2013 - 12/31/20	13 0.99	0.82	0.96		0.97

County: 70 - BREVARD

Wee	k Dates	7013	7014	7015	7016
		SR528,ORANGE CO-US1	US1, IND RIV CO-SR518	SR508	SR518,US1 TO A1A
	01/01/2013 - 01/05/201		0.98	1.00	0.99
2	01/06/2013 - 01/12/201		0.98	1.00	0.99
3	01/13/2013 - 01/19/201		0.98	1.00	0.99
4	01/20/2013 - 01/26/201		0.98	1.00	0.99
5	01/27/2013 - 02/02/201	.3 0.95	0.98	1.00	0.99
6	02/03/2013 - 02/09/201		0.98	1.00	0.99
7	02/10/2013 - 02/16/201	.3 0.94	0.98	1.00	0.99
8	02/17/2013 - 02/23/201	.3 0.94	0.98	1.00	0.99
9	02/24/2013 - 03/02/201	.3 0.95	0.98	1.00	0.99
10	03/03/2013 - 03/09/201	.3 0.95	0.97	1.00	0.99
11	03/10/2013 - 03/16/201	.3 0.95	0.97	1.00	0.99
12	03/17/2013 - 03/23/201		0.97	1.00	0.99
13	03/24/2013 - 03/30/201	.3 0.95	0.97	1.00	0.99
14	03/31/2013 - 04/06/201	.3 0.95	0.97	1.00	0.99
15	04/07/2013 - 04/13/201	.3 0.95	0.97	1.00	0.99
16	04/14/2013 - 04/20/201	.3 0.95	0.97	1.00	0.99
17	04/21/2013 - 04/27/201	.3 0.95	0.97	1.00	0.99
18	04/28/2013 - 05/04/201	.3 0.95	0.97	1.00	0.99
19	05/05/2013 - 05/11/201	.3 0.95	0.97	1.00	0.99
20	05/12/2013 - 05/18/201	.3 0.95	0.97	1.00	0.99
21	05/19/2013 - 05/25/201	.3 0.95	0.97	1.00	0.99
22	05/26/2013 - 06/01/201	.3 0.95	0.97	1.00	0.99
23	06/02/2013 - 06/08/201	.3 0.95	0.97	1.00	0.99
24	06/09/2013 - 06/15/201	.3 0.95	0.97	1.00	0.99
25	06/16/2013 - 06/22/201	.3 0.95	0.97	1.00	0.99
26	06/23/2013 - 06/29/201	.3 0.95	0.97	1.00	0.99
27	06/30/2013 - 07/06/201	.3 0.94	0.97	1.00	0.99
28	07/07/2013 - 07/13/201	.3 0.94	0.97	1.00	0.99
29	07/14/2013 - 07/20/201	.3 0.94	0.97	1.00	0.99
30	07/21/2013 - 07/27/201	.3 0.94	0.97	1.00	0.99
31	07/28/2013 - 08/03/201		0.97	1.00	0.99
32	08/04/2013 - 08/10/201	.3 0.94	0.97	1.00	0.99
33	08/11/2013 - 08/17/201	.3 0.94	0.97	1.00	0.99
34	08/18/2013 - 08/24/201	.3 0.94	0.97	1.00	0.99
35	08/25/2013 - 08/31/201	.3 0.94	0.97	1.00	0.99
36	09/01/2013 - 09/07/201	.3 0.94	0.98	1.00	0.99
37	09/08/2013 - 09/14/201	.3 0.94	0.98	1.00	0.99
38	09/15/2013 - 09/21/201	.3 0.94	0.98	1.00	0.99
39	09/22/2013 - 09/28/201	.3 0.94	0.98	1.00	0.99
40			0.98	1.00	0.99
41	10/06/2013 - 10/12/201	.3 0.94	0.97	1.00	0.99
42	10/13/2013 - 10/19/201	.3 0.94	0.97	1.00	0.99
43	10/20/2013 - 10/26/201	.3 0.94	0.97	1.00	0.99
44	10/27/2013 - 11/02/201	.3 0.95	0.97	1.00	0.99
45			0.97	1.00	0.99
46	11/10/2013 - 11/16/201		0.97	1.00	0.99
47			0.97	1.00	0.99
48			0.97	1.00	0.99
49			0.98	1.00	0.99
50			0.98	1.00	0.99
51			0.98	1.00	0.99
52			0.98	1.00	0.99
	12/29/2013 - 12/31/201		0.98	1.00	0.99
	, , , , , , , , , , , , , , , , , , , ,				

#### Appendix E

Signal Timings & SYNCHRO Intersection Analysis Outputs for Year 2015

Phase Times [1 1 1]

Phase Times	1	2	3	4	5	6	7	8
W:- C								
Min Green	10	15		10	<u> </u>	15		<del> </del>
Gap, Ext	4	3.5		3.5		3.5		
Max 1	30	60		40		60		
Max 2								
Yel Clearance	4	5		4		5		
Red Clearance	1.5	2		1.5		2		
Walk			·					
Ped Clearance								
Red Revert								
Add Initial								
Max Initial	****							
Time B4 Reduct						4.4		
Cars B4 Reduct								
Time To Reduce								
Reduce By								
Min Gap								
DyMaxLim								
Max Step								

Auto Flash P	arms [1	l.4.1]	Flash Pa	rameter	Clearan	ce Time
			Mode	VOT_MON	Yellow	45
Auto Flash, F	hases/	Overlap	os [1.4.2]		Red	30
Yel (phases)	2	6				
Yel (overlaps)						

Malabar Rd & US 1 (ID 2550) (Standard File) 03/29/12

Phase Options [1.1.2]

Phase Optio	រាទ្រ	٠١٠٤١						
<u> </u>	1	2	3	4	5	6	7	8
Enable	1	1		1		1	1	
Min Recall		1				11		
Max Recall								
Ped Recall								
Soft Recall								
Lock Calls								
Auto Flash Entry				1				
Auto Flash Exit		1				1		
Dual Entry		1				1		
Enable Simul Gap		1				1		
Gaurant Passage								
Rest In Walk								
Conditon Service								
Non-Actuated 1								
Non-Actuated 2								
Add Init Calc								
Phase Optio	ns+ ['	1.1.3]						
Reservice								
Walk Thru Yel								
Skip Red No Call								
Red Rest								
Max II						·		
Conflicting Phase					***************************************			
Conflicting Phase	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A	#N/A
Omit Yellow					****			
Ped Out/Olap					***************************************			
Start Yel, Next Ph								

**Detector, Vehicle Parameters 1-24 [5.1]** 

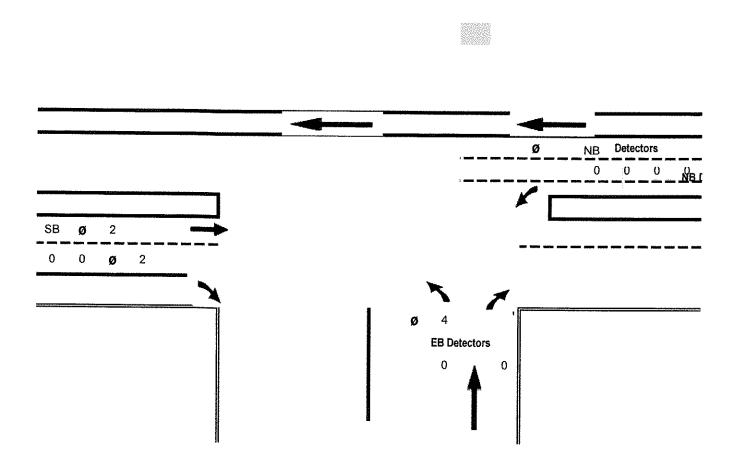
-		CHILLIC			/1 U 1 L	T [0.1]			
Det#	Call Φ	Switch Φ	Delay	Extend	Queue	NoAct	MaxPres	ErrCnt	FailTime
1	1						15	70	255
2	2						15	70	255
3	2						15	70	255
4	4						15	70	255
5	4						15	70	255
6	6						15	70	255
7	6						15	70	255
8	6						15	70	255
9							15	70	255
10							15	70	255
11		*****					15	70	255
12							15	70	255
13							15	70	255
14							15	70	255
15							15	70	255
16							15	70	55
17							15	70	255
18							15	70	255
19							15	70	255
20							15	70	255
21							15	70	255
22							15	70	255
23							15	70	55
24							15	70	255

**Detector, Vehicle Parameters 41-64 [5.1]** 

Dete	retor,	venicie	raiai	ieteis	41-04	+ [3.1]			,
Det#	Call Φ	Switch Φ	Delay	Extend	Queue	NoAct	MaxPres	ErrCnt	FailTime
41							15	70	255
42					****		15	70	255
43							15	70	255
44							15	70	255
45							15	70	255
46							15	70	255
47							15	70	55
48	***************************************						15	70	255
49							15	70	255
50							15	70	255
51							15	70	255
52							15	70	255
53							15	70	255
54							15	70	255
55							15	70	55
56							15	70	255
57							15	70	255
58							15	70	255
59							15	70	255
60							15	70	255
61							15	70	255
62							15	70	255
63							15	70	55
64							15	70	255

#### Malabar Rd & US 1 (ID 2550) (Standard File)

3/29/2012



Intersection									
Int Delay, s/veh	1								
501437 077011	·								
Movement	EBL	EBT				WBT	WBR	SBL	SBR
Vol, veh/h	98	787				635	10	3	40
Conflicting Peds, #/hr	2	0				033	2	0	0
Sign Control	Free	Free				Free	Free	Stop	Stop
RT Channelized	-					-	None	310p	None
Storage Length	200	-				-	160	0	0
Veh in Median Storage, #	200	0				0	100	1	-
Grade, %	-	0				0	-	0	-
Peak Hour Factor	93	93				93	93	93	93
Heavy Vehicles, %	1	4				6	20	0	5
Mymt Flow	105	846				683	11	3	43
IVIVITIL I IOW	103	040				003	11	J	43
Major/Minor	Major1				١	/lajor2		/linor2	
Conflicting Flow All	683	0				-	0	1740	685
Stage 1	-	-				-	-	683	-
Stage 2	-	-				-	-	1057	-
Critical Hdwy	4.11	-				-	-	6.4	6.25
Critical Hdwy Stg 1	-	-				-	-	5.4	-
Critical Hdwy Stg 2	-	-				-	-	5.4	-
Follow-up Hdwy	2.209	-				-	-	3.5	3.345
Pot Cap-1 Maneuver	915	-				-	-	97	443
Stage 1	-	-				-	-	505	-
Stage 2	-	-				-	-	337	-
Platoon blocked, %		-				-	-		
Mov Cap-1 Maneuver	913	-				-	-	86	442
Mov Cap-2 Maneuver	-	-				-	-	207	-
Stage 1	-	-				-	-	505	-
Stage 2	-	-				-	-	298	-
Approach	EB					WB		SB	
HCM Control Delay, s	1					0		14.6	
HCM LOS	·							В	
Minor Long/Maiar Must	רחו	EDT	MDT	MDD C	N -1 C	ים וחי			
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR SI					
Capacity (veh/h)	913	-	-	-	207	442			
HCM Cantrol Palace (a)	0.115	-	-		0.016				
HCM Control Delay (s)	9.5	-	-		22.7	14			
HCM Lane LOS	A	-	-	-	С	В			
HCM 95th %tile Q(veh)	0.4	-	-	-	0	0.3			

E-4

~: Volume exceeds capacity

Int Delay, s/veh   25.7	Interception								
Movement	Intersection	05.7							
Vol, vehi/h         693         62         13         530         145         27           Conflicting Peds, #/hr         0         0         0         0         0         0         0           Sign Control         Free         Free         Free         Free         Stop         Stop         Stop         RT Channelized         None	ini Deiay, S/Veri 2	25.7							
Vol, vehi/h         693         62         13         530         145         27           Conflicting Peds, #/hr         0         0         0         0         0         0         0           Sign Control         Free         Free         Free         Free         Stop         Stop         Stop         RT Channelized         None		_							
Conflicting Peds, #/hr									
Sign Control         Free RT (Pree PT)         Free RT (Pree PT)         Stop RT (PT)		6							
RT Channelized									
Storage Length		Fr			Free		Stop		
Veh in Median Storage, #         0         -         -         0         0         -         Crade, %         0         -         -         0         0         -         Crade, %         0         -         Peak Hour Factor         88         80         823           Stage 1 </td <td></td> <td></td> <td>- No</td> <td>one</td> <td>-</td> <td>None</td> <td></td> <td>None</td> <td></td>			- No	one	-	None		None	
Grade, % 0 0 0 0 - Peak Hour Factor 88 88 88 88 88 88 88 88 88 88 88 88 88			-	-	-	-		-	
Peak Hour Factor         88         82            80 <td></td> <td></td> <td></td> <td>-</td> <td>-</td> <td></td> <td></td> <td>-</td> <td></td>				-	-			-	
Heavy Vehicles, %   3   3   0   3   2   0									
Mydior/Minor         Major1         Major2         Minor1           Conflicting Flow All         0         0         858         0         1455         823           Stage 1         -         -         -         -         823         -           Stage 2         -         -         -         -         632         -           Critical Hdwy         -         -         4.1         -         6.42         6.2           Critical Hdwy Stg 1         -         -         -         -         5.42         -           Critical Hdwy Stg 2         -         -         -         5.42         -           Critical Hdwy Stg 2         -         -         -         5.42         -           Critical Hdwy Stg 2         -         -         -         5.42         -           Critical Hdwy Stg 2         -         -         -         5.42         -           Follow-up Hdwy         -         -         2.2         -         3.518         3.3           Pot Cap-1 Maneuver         -         -         -         431         -           Stage 1         -         -         -         -         - <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>									
Major/Minor									
Conflicting Flow All	Mvmt Flow	7	88	70	15	602	165	31	
Conflicting Flow All									
Conflicting Flow All	Major/Minor	Maio	r1		Major2		Minor1		
Stage 1				0		0	1455	823	
Stage 2       -       -       -       632       -         Critical Hdwy       -       -       4.1       -       6.42       6.2         Critical Hdwy Stg 1       -       -       -       5.42       -         Critical Hdwy Stg 2       -       -       -       5.42       -         Follow-up Hdwy       -       -       2.2       -       3.518       3.3         Pot Cap-1 Maneuver       -       -       791       -       143       377         Stage 1       -       -       -       -       530       -         Platoon blocked, %       -       -       -       -       139       377         Mov Cap-1 Maneuver       -       -       791       -       139       377         Mov Cap-2 Maneuver       -       -       -       139       377         Mov Cap-2 Maneuver       -       -       -       139       -         Stage 1       -       -       -       -       139       -         Stage 2       -       -       -       -       515       -         Approach       EB       WB       NB			_		-			-	
Critical Hdwy       -       -       4.1       -       6.42       6.2         Critical Hdwy Stg 1       -       -       -       5.42       -         Critical Hdwy Stg 2       -       -       -       5.42       -         Follow-up Hdwy       -       -       2.2       3.518       3.3         Pot Cap-1 Maneuver       -       -       791       -       143       377         Stage 1       -       -       -       431       -       -       -       530       - </td <td></td> <td></td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td></td> <td>_</td> <td></td>			-	-	-	-		_	
Critical Hdwy Stg 1       -       -       -       5.42       -         Critical Hdwy Stg 2       -       -       -       5.42       -         Follow-up Hdwy       -       -       2.2       3.518       3.3         Pol Cap-1 Maneuver       -       -       791       -       143       377         Stage 1       -       -       -       431       -			-	_	4.1	-		6.2	
Critical Hdwy Stg 2       -       -       -       5.42       -         Follow-up Hdwy       -       -       2.2       -       3.518       3.3         Pot Cap-1 Maneuver       -       -       791       -       143       377         Stage 1       -       -       -       -       431       -         Stage 2       -       -       -       -       530       -         Platoon blocked, %       -       -       -       -       -       377         Mov Cap-1 Maneuver       -       -       -       139       377         Mov Cap-2 Maneuver       -       -       -       139       -         Stage 1       -       -       -       -       431       -         Stage 2       -       -       -       -       515       -         Approach       EB       WB       NB         HCM Control Delay, s       0       0.2       219.4         HCM Lane V/C Ratio       1.269       -       0.019       -         HCM Control Delay (s)       219.4       -       -       9.6       0         <			-	-		_			
Follow-up Hdwy 2.2 - 3.518 3.3  Pot Cap-1 Maneuver 791 143 377  Stage 1 431 530 - 530 - 530 - 530  Platoon blocked, %  Mov Cap-1 Maneuver 791 139 377  Mov Cap-2 Maneuver 139 377  Mov Cap-2 Maneuver 139 139 - 515 -	3 0		_	-	-	_		_	
Pot Cap-1 Maneuver       -       -       791       -       -143       377         Stage 1       -       -       -       -       431       -         Stage 2       -       -       -       -       -       -         Platoon blocked, %       - <td< td=""><td></td><td></td><td>-</td><td>_</td><td>2.2</td><td>_</td><td></td><td>3.3</td><td></td></td<>			-	_	2.2	_		3.3	
Stage 1			_	_		_			
Stage 2       -       -       -       -       530       -         Platoon blocked, %       - <td< td=""><td>•</td><td></td><td>-</td><td>_</td><td></td><td>-</td><td></td><td></td><td></td></td<>	•		-	_		-			
Platoon blocked, %   -   -   -   -     -			_	_	_	_			
Mov Cap-1 Maneuver         -         -         791         -         -         139         377           Mov Cap-2 Maneuver         -         -         -         -         139         -         -         139         -         -         -         139         -         -         -         139         -         -         -         139         -         -         -         139         -         -         -         139         -         -         -         139         -			-	_		-			
Mov Cap-2 Maneuver       -       -       -       -       139       -         Stage 1       -       -       -       -       431       -         Stage 2       -       -       -       -       515       -             Approach       EB       WB       NB         HCM Control Delay, s       0       0.2       219.4         HCM LOS       F       -       791       -         Minor Lane/Major Mvmt       NBLn1       EBT       EBR       WBL       WBT         Capacity (veh/h)       154       -       791       -         HCM Lane V/C Ratio       1.269       -       0.019       -         HCM Control Delay (s)       219.4       -       -       9.6       0         HCM Lane LOS       F       -       -       A       A         HCM 95th %tile Q(veh)       11.5       -       0.1       -			_	_	791	_	~ 139	377	
Stage 1       -       -       -       -       431       -         Stage 2       -       -       -       515       -         Approach       EB       WB       NB         HCM Control Delay, s       0       0.2       219.4         HCM LOS       F            Minor Lane/Major Mvmt       NBLn1       EBT       EBR       WBL       WBT         Capacity (veh/h)       154       -       -       791       -         HCM Lane V/C Ratio       1.269       -       0.019       -         HCM Control Delay (s)       219.4       -       -       9.6       0         HCM Lane LOS       F       -       -       A       A         HCM 95th %tile Q(veh)       11.5       -       -       0.1       -			-	-		-			
Stage 2			_	-	-	-		-	
Approach         EB         WB         NB           HCM Control Delay, s         0         0.2         219.4           HCM LOS         F         F             Minor Lane/Major Mvmt         NBLn1         EBT         EBR         WBL         WBT           Capacity (veh/h)         154         -         -         791         -           HCM Lane V/C Ratio         1.269         -         -         0.019         -           HCM Control Delay (s)         219.4         -         -         9.6         0           HCM Lane LOS         F         -         -         A         A           HCM 95th %tile Q(veh)         11.5         -         -         0.1         -			-	-	_	-		_	
HCM Control Delay, s	<u> </u>								
HCM Control Delay, s 0 0.2 219.4 HCM LOS F  Minor Lane/Major Mvmt NBLn1 EBT EBR WBL WBT  Capacity (veh/h) 154 791 - HCM Lane V/C Ratio 1.269 0.019 - HCM Control Delay (s) 219.4 9.6 0 HCM Lane LOS F - A A HCM 95th %tile Q(veh) 11.5 - 0.1 -	Annroach		D		MD		ND		
Minor Lane/Major Mvmt         NBLn1         EBT         EBR         WBL         WBT           Capacity (veh/h)         154         -         -         791         -           HCM Lane V/C Ratio         1.269         -         -         0.019         -           HCM Control Delay (s)         219.4         -         -         9.6         0           HCM Lane LOS         F         -         -         A         A           HCM 95th %tile Q(veh)         11.5         -         0.1         -									
Minor Lane/Major Mvmt         NBLn1         EBR         WBL         WBT           Capacity (veh/h)         154         -         -         791         -           HCM Lane V/C Ratio         1.269         -         -         0.019         -           HCM Control Delay (s)         219.4         -         -         9.6         0           HCM Lane LOS         F         -         -         A         A           HCM 95th %tile Q(veh)         11.5         -         0.1         -			U		0.2				
Capacity (veh/h)       154       -       - 791       -         HCM Lane V/C Ratio       1.269       -       - 0.019       -         HCM Control Delay (s)       219.4       -       - 9.6       0         HCM Lane LOS       F       -       -       A       A         HCM 95th %tile Q(veh)       11.5       -       0.1       -	HCIVI LUS						Г		
Capacity (veh/h)       154       -       - 791       -         HCM Lane V/C Ratio       1.269       -       - 0.019       -         HCM Control Delay (s)       219.4       -       - 9.6       0         HCM Lane LOS       F       -       -       A       A         HCM 95th %tile Q(veh)       11.5       -       0.1       -									
HCM Lane V/C Ratio 1.269 0.019 - HCM Control Delay (s) 219.4 9.6 0 HCM Lane LOS F - A A HCM 95th %tile Q(veh) 11.5 - 0.1 -			BT E						
HCM Control Delay (s)       219.4       -       -       9.6       0         HCM Lane LOS       F       -       -       A       A         HCM 95th %tile Q(veh)       11.5       -       -       0.1       -			-						
HCM Lane LOS F A A HCM 95th %tile Q(veh) 11.5 - 0.1 -	HCM Lane V/C Ratio		-						
HCM 95th %tile Q(veh) 11.5 0.1 -			-						
	HCM Lane LOS		-						
	HCM 95th %tile Q(veh)	11.5	-	- 0.	1 -				
Notes	Notes								

SR 514 DTTM Update

Synchro 8 Report

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+: Computation Not Defined

\*: All major volume in platoon

\$: Delay exceeds 300s

Intersection													
Int Delay, s/veh 21	.4												
·													
Movement	EBL	EBT	EBR	WBL	WBT	WBR		NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	22	698	29	10	379	3		92	9	81	29	8	33
Conflicting Peds, #/hr	0	0	1	1	0	0		0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free		Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None		-	-	None	-	-	None
Storage Length	-	-	-	-	-	-		-	-	-	-	-	140
Veh in Median Storage, #	-	0	-	-	0	-		-	0	-	-	0	-
Grade, %	-	0	-	-	0	-		-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91		91	91	91	91	91	91
Heavy Vehicles, %	0	2	7	0	3	0		2	11	0	0	0	0
Mvmt Flow	24	767	32	11	416	3		101	10	89	32	9	36
Major/Minor	Major1			Major2				Minor1			Minor2		
Conflicting Flow All	420	0	0	799		0		1276	1273	784	1321	1287	419
Stage 1	-	-	-	-	-	-		831	831	-	440	440	-
Stage 2	-	-	-	-	-	-		445	442	-	881	847	-
Critical Hdwy	4.1	-	-	4.1	-	-		7.12	6.61	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-		6.12	5.61	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-		6.12	5.61	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.2	-	-		3.518	4.099	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1150	-	-	833	-	-		144	161	396	135	166	638
Stage 1	-	-	-	-	-	-		364	372	-	600	581	-
Stage 2	-	-	-	-	-	-		592	561	-	344	381	-
Platoon blocked, %		-	-		-	-							
Mov Cap-1 Maneuver	1149	-	-	832	-	-		125	152	396	95	157	637
Mov Cap-2 Maneuver	-	-	-	-	-	-		125	152	-	95	157	-
Stage 1	-	-	-	-	-	-		350	358	-	577	571	-
Stage 2	-	-	-	-	-	-		540	551	-	249	367	-
Approach	EB			WB				NB			SB		
HCM Control Delay, s	0.2			0.2				148.4			37.1		
HCM LOS								F			Е		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR WBL	WBT	WBR	SBLn1	SBLn2					
Capacity (veh/h)	182	1149	-	- 832		-	104	637					
HCM Lane V/C Ratio		0.021	_	- 0.013		-	0.391						
HOW Lane We Kallo	1.099	0.021											
			0			-							
HCM Control Delay (s) HCM Lane LOS	1.099 148.4 F	8.2 A		- 9.4 - A	0	-	60.3 F	11 B					

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Intersection													
Int Delay, s/veh	0.8												
Movement	EBL	EBT	EBR	WBL	WBT	WBR		NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	5	790	3	4	420	1		3	0	36	3	0	6
Conflicting Peds, #/hr	0	0	0	0	0	0		0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free		Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None		-	-	None	· -	-	None
Storage Length	-	-	-	-	-	-		-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-		-	0	-	-	0	-
Grade, %	-	0	-	-	0	-		-	0	-	-	0	-
Peak Hour Factor	94	94	94	94	94	94		94	94	94	94	94	94
Heavy Vehicles, %	0	3	0	25	5	0		0	0	0	0	0	0
Mvmt Flow	5	840	3	4	447	1		3	0	38	3	0	6
Major/Minor	Major1			Major2			N	linor1			Minor2		
Conflicting Flow All	448	0	0	844	0	0		1312	1309	842	1328	1310	447
Stage 1	-	-	-	-	-	-		853	853	-	456	456	-
Stage 2	-	-	-	-	-	-		459	456	-	872	854	-
Critical Hdwy	4.1	-	-	4.35	-	-		7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-		6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-		6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.425	-	-		3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1123	-	-	702	-	-		137	161	367	133	160	616
Stage 1	-	-	-	-	-	-		357	378	-	588	572	-
Stage 2	-	-	-	-	-	-		586	572	-	348	378	-
Platoon blocked, %		-	-		-	-							
Mov Cap-1 Maneuver	1123	-	-	702	-	-		134	158	367	118	157	616
Mov Cap-2 Maneuver	-	-	-	-	-	-		134	158	-	118	157	-
Stage 1	-	-	-	-	-	-		354	375	-	583	567	-
Stage 2	-	-	-	-	-	-		575	567	-	309	375	-
Approach	EB			WB				NB			SB		
HCM Control Delay, s	0.1			0.1				17.7			19.6		
HCM LOS								С			С		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR WBL	WBT	WBR :	SBLn1						
Capacity (veh/h)	324	1123	-	- 702	-	_	256						
HCM Lane V/C Ratio	0.128		-	- 0.006	-	-	0.037						
HCM Control Delay (s)	17.7	8.2	0	- 10.2	0	_	19.6						
HCM Lane LOS	С	A	A	- B	A	_	С						
HCM 95th %tile Q(veh)	0.4	0	-	- 0	-	-	0.1						

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Lane Group	EBL2	EBL	EBR	SBL	SBR	SEL	SET	SER	NWL	NWT	NWR	
Lane Configurations	ሻ		7				<b>^</b>	7	ሻ	<b>†</b>	7	,
Volume (vph)	623	0	219	0	0	0	355	207	208	27	606	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	
Grade (%)		0%		0%			0%			0%		
Storage Length (ft)		0	100	0	0	0		185	570		0	
Storage Lanes		1	1	0	0	0		1	1		1	
Taper Length (ft)		25		25		25			25			
Satd. Flow (prot)	1787	0	1553	0	0	0	3471	1553	1687	1557	1599	
FIt Permitted	0.950								0.470			
Satd. Flow (perm)	1787	0	1553	0	0	0	3471	1518	835	1557	1599	
Right Turn on Red			Yes					Yes			Yes	
Satd. Flow (RTOR)			555					230			673	
Link Speed (mph)		30		30			45			45		
Link Distance (ft)		3209		245			551			747		
Travel Time (s)		72.9		5.6			8.3			11.3		
Confl. Peds. (#/hr)								2				
Confl. Bikes (#/hr)												
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Heavy Vehicles (%)	1%	0%	4%	0%	0%	0%	4%	4%	7%	22%	1%	
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	
Parking (#/hr)												
Mid-Block Traffic (%)		0%		0%			0%			0%		
Shared Lane Traffic (%)												
Lane Group Flow (vph)	692	0	243	0	0	0	394	230	231	30	673	
Turn Type	Prot		Prot				NA	Perm	D.P+P	NA	custom	
Protected Phases	4		4				2		1	21	Free	
Permitted Phases			4					2	2			
Detector Phase	4		4				2	2	1	21		
Switch Phase												
Minimum Initial (s)	10.0		10.0				15.0	15.0	10.0			
Minimum Split (s)	21.5		21.5				23.0	23.0	15.5			
Total Split (s)	40.0		40.0				60.0	60.0	30.0			
Total Split (%)	30.8%		30.8%				46.2%	46.2%	23.1%			
Yellow Time (s)	4.0		4.0				5.0	5.0	4.0			
All-Red Time (s)	1.5		1.5				2.0	2.0	1.5			
Lost Time Adjust (s)	0.0		0.0				0.0	0.0	0.0			
Total Lost Time (s)	5.5		5.5				7.0	7.0	5.5			
Lead/Lag							Lag	Lag	Lead			
Lead-Lag Optimize?							Yes	Yes	Yes			
Recall Mode	None		None				Min	Min	None			
Act Effct Green (s)	34.6		34.6				17.1	17.1	32.3	36.3	83.5	
Actuated g/C Ratio	0.41		0.41				0.20	0.20	0.39	0.43	1.00	
v/c Ratio	0.94		0.25				0.55	0.47	0.50	0.04	0.42	
Control Delay	46.7		0.6				33.3	7.5	18.5	13.2	0.8	
Queue Delay	0.0		0.0				0.0	0.0	0.0	0.0	0.0	
Total Delay	46.7		0.6				33.3	7.5	18.5	13.2	0.8	
LOS	D		А				С	A	В	В	А	

	<b>y</b>	۶	¬.	Ļ	4	•	×	4	•	×	*	
Lane Group	EBL2	EBL	EBR	SBL	SBR	SEL	SET	SER	NWL	NWT	NWR	
Approach Delay							23.8			5.6		
Approach LOS							С			Α		
Intersection Summary												
Area Type:	Other											
Cycle Length: 130												
Actuated Cycle Length: 83.5												
Natural Cycle: 80												
Control Type: Actuated-Unco	oordinated											
Maximum v/c Ratio: 0.94												
Intersection Signal Delay: 21	.1			Int	ersection	LOS: C						
Intersection Capacity Utilizat	ion 72.3%			IC	U Level c	of Service	С					
Analysis Period (min) 15												
Splits and Phases: 6: US	1 & Malaba	r Road										
<b>★</b> ø1	No.	2						- <b>X</b> ø4	1			
30 s	60 s							40 s				

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Movement   Sel	Intersection								
Movement		1.5							
Vol. veh/h         43         695         864         8         6         96           Conflicting Peds, #/hr         1         0         0         1         0         0           Sign Control         Free         Free         Free         Free         Stop         Stop         Stop         Stop         None         -         None         Stop </td <td><b>3</b> .</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	<b>3</b> .								
Vol. veh/h         43         695         864         8         6         96           Conflicting Peds, #/hr         1         0         0         1         0         0           Sign Control         Free         Free         Free         Free         Stop         Stop         Stop         Stop         None         -         None         Stop </td <td>Movement</td> <td>EBL</td> <td>EBT</td> <td></td> <td></td> <td>WBT</td> <td>WBR</td> <td>SBL</td> <td>SBR</td>	Movement	EBL	EBT			WBT	WBR	SBL	SBR
Conflicting Peds, #/hr									
Sign Control         Free RT (None)         Free None         Free None         Free None         Stop None         Stop None         Stop None         Stop None         Stop None         None <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>									
RT Channelized         None		•							
Storage Length								•	•
Veh in Median Storage, #       -       0       0       -       1       -       Grade, %       -       0       0       -       0       -       0       -       0       -       0       -       0       -       0       -       0       -       0       -       0       -       0       -       0       -       0       -       0       -       0       -       0       3         Meavy Vehicles, %       0       0       1       2       25       0       3         Mornt Flow       45       732       909       8       6       101         Major/Minor       Major/Minor       Major/Minor       Major/Minor       Minor2       Minor2         Major/Minor       Major/Minor       Major       Minor2       Minor2       Minor2         Major/Minor       Major       Minor       Minor </td <td></td> <td>200</td> <td></td> <td></td> <td></td> <td>-</td> <td></td> <td>0</td> <td></td>		200				-		0	
Grade, %         -         0         0         -         0           Peak Hour Factor         95         96         101         96         90         20         20         20         20         20			0			0			
Peak Hour Factor         95         96         2           Moder         201         402         2         2         2         2         2         2         2         3         3         327         90         2         331         3         322         2							-		-
Heavy Vehicles, %		95					95		95
Mynt Flow         45         732         909         8         6         101           Major/Minor         Major1         Major2         Minor2           Conflicting Flow All         909         0         -         0         1731         910           Stage 1         -         -         -         909         -           Stage 2         -         -         -         909         -           Critical Hdwy         4.1         -         -         -         6.4         6.23           Critical Hdwy Stg 1         -         -         -         5.4         -         -         5.4         -           Critical Hdwy Stg 2         -         -         -         5.4         -         -         -         5.4         -         -         -         5.4         -									
Major/Minor   Major1									
Conflicting Flow All 909 0 - 0 1731 910 Stage 1 909 - 822 - 909 - 822 - 909 -									
Conflicting Flow All 909 0 - 0 1731 910 Stage 1 909 - 822 - 909 - 822 - 909 -	Major/Minor	Major1				Majora		Minor	
Stage 1			0			iviajui 2	0		010
Stage 2       -       -       -       -       822       -         Critical Hdwy       4.1       -       -       -       6.4       6.23         Critical Hdwy Stg 1       -       -       -       5.4       -         Critical Hdwy Stg 2       -       -       -       5.4       -         Follow-up Hdwy       2.2       -       -       -       3.5       3.327         Pot Cap-1 Maneuver       757       -       -       98       331         Stage 1       -       -       -       98       331         Stage 2       -			U			-			910
Critical Hdwy       4.1       -       -       6.4       6.23         Critical Hdwy Stg 1       -       -       -       5.4       -         Critical Hdwy Stg 2       -       -       -       5.4       -         Follow-up Hdwy       2.2       -       -       3.5       3.327         Pot Cap-1 Maneuver       757       -       -       98       331         Stage 1       -       -       -       396       -         Stage 2       -       -       -       435       -         Platoon blocked, %       -       -       -       92       331         Mov Cap-1 Maneuver       756       -       -       92       331         Mov Cap-2 Maneuver       -       -       92       331         Mov Cap-2 Maneuver       -       -       92       331         Stage 2       -       -       -       92       331         Approach       EB       WB       SB         HCM Control Delay, s       0.6       0       20.6         HCM LOS       -       -       226       331         HCM Los       -       -       -			-			-	-		-
Critical Hdwy Stg 1       -       -       5.4       -         Critical Hdwy Stg 2       -       -       5.4       -         Follow-up Hdwy       2.2       -       -       3.5       3.327         Pot Cap-1 Maneuver       757       -       -       98       331         Stage 1       -       -       -       396       -         Stage 2       -       -       -       435       -         Platoon blocked, %       -       -       -       92       331         Mov Cap-1 Maneuver       756       -       -       92       331         Mov Cap-2 Maneuver       -       -       -       396       -         Stage 1       -       -       -       0       20.6         HCM Control Delay, s       0.6       0       20.6       0       <			-			-	-		
Critical Hdwy Stg 2       -       -       5.4       -         Follow-up Hdwy       2.2       -       -       3.5       3.327         Pot Cap-1 Maneuver       757       -       -       98       331         Stage 1       -       -       -       396       -         Stage 2       -       -       -       435       -         Platoon blocked, %       -       -       -       92       331         Mov Cap-1 Maneuver       756       -       -       92       331         Mov Cap-2 Maneuver       -       -       -       92       331         Mov Cap-2 Maneuver       -       -       -       92       331         Stage 2       -       -       -       396       -         Stage 2       -       -       -       396       -         Approach       EB       WB       SB         HCM Control Delay, s       0.6       0       20.6         HCM Los       C       C     WB SBLn1 SBLn2  Capacity (veh/h)  756  226 331  HCM Captority (veh/h)  756 226 331  HCM Captority (veh/h)  756 226 331  HCM Captority (veh/h)  756 226 331  HCM Captority (veh/h)  756 226 331  HCM Captority (veh			-			-	-		
Follow-up Hdwy 2.2 3.5 3.327  Pot Cap-1 Maneuver 757 98 331  Stage 1 396 - 396 - 3435 - 513ge 2 435 513ge 2 435 513ge 2 435 513ge 2			-			-	-		
Pot Cap-1 Maneuver			-			-	-		
Stage 1       -       -       396       -         Stage 2       -       -       -       435       -         Platoon blocked, %       -       -       -       -       -         Mov Cap-1 Maneuver       756       -       -       92       331         Mov Cap-2 Maneuver       -       -       -       226       -         Stage 1       -       -       -       396       -         Stage 2       -       -       -       409       -         Approach       EB       WB       SB         HCM Control Delay, s       0.6       0       20.6         HCM Lane/Major Mvmt       EBL       EBT       WBR SBLn1 SBLn2         Capacity (veh/h)       756       -       -       226       331         HCM Lane V/C Ratio       0.06       -       -       0.028       0.305         HCM Control Delay (s)       10.1       -       -       21.4       20.6         HCM Lane LOS       B       -       -       C       C			-			-	-		
Stage 2			-			-	-		
Platoon blocked, %       -       -       -       -       -       -       -       -       -       92       331         Mov Cap-2 Maneuver       -       -       -       -       226       -       -       396       -       -       396       -       -       -       409       -       -       -       409       -       -       -       409       -       -       -       409       -       -       -       409       -       -       -       409       -       -       -       409       -       -       -       20.6       -       -       -       20.6       -			-			-	-		-
Mov Cap-1 Maneuver         756         -         -         92         331           Mov Cap-2 Maneuver         -         -         -         226         -           Stage 1         -         -         -         396         -           Stage 2         -         -         -         409         -           Approach         EB         WB         SB           HCM Control Delay, s         0.6         0         20.6           HCM LOS         C         C             Minor Lane/Major Mvmt         EBL         EBT         WBR SBLn1 SBLn2           Capacity (veh/h)         756         -         -         226         331           HCM Lane V/C Ratio         0.06         -         -         0.028         0.305           HCM Control Delay (s)         10.1         -         -         21.4         20.6           HCM Lane LOS         B         -         -         C         C		<u> </u>				_		433	
Mov Cap-2 Maneuver         -         -         226         -           Stage 1         -         -         -         396         -           Stage 2         -         -         -         409         -           Approach         EB         WB         SB           HCM Control Delay, s         0.6         0         20.6           HCM LOS         C         C    Minor Lane/Major Mvmt  EBL  EBT  WBT  WBR SBLn1 SBLn2  Capacity (veh/h)  756  226  331  HCM Lane V/C Ratio  0.06  0.028  0.305  HCM Control Delay (s)  10.1  - 21.4  20.6  HCM Lane LOS  B  C  C		756	_			_	_	92	331
Stage 1			_			-	_		
Stage 2         -         -         409         -           Approach         EB         WB         SB           HCM Control Delay, s         0.6         0         20.6           HCM LOS         C         C             Minor Lane/Major Mvmt         EBL         EBT         WBT         WBR SBLn1 SBLn2           Capacity (veh/h)         756         -         -         226         331           HCM Lane V/C Ratio         0.06         -         -         0.028         0.305           HCM Control Delay (s)         10.1         -         -         21.4         20.6           HCM Lane LOS         B         -         -         C         C			_						
Approach         EB         WB         SB           HCM Control Delay, s         0.6         0         20.6           HCM LOS         C         C             Minor Lane/Major Mvmt         EBL         EBT         WBT         WBR SBLn1 SBLn2           Capacity (veh/h)         756         -         -         226         331           HCM Lane V/C Ratio         0.06         -         -         0.028         0.305           HCM Control Delay (s)         10.1         -         -         21.4         20.6           HCM Lane LOS         B         -         -         C         C			_						
HCM Control Delay, s	Jiago Z							TU7	
HCM Control Delay, s						1475		65	
Minor Lane/Major Mvmt         EBL         EBT         WBT         WBR SBLn1 SBLn2           Capacity (veh/h)         756         -         -         226         331           HCM Lane V/C Ratio         0.06         -         -         0.028         0.305           HCM Control Delay (s)         10.1         -         -         21.4         20.6           HCM Lane LOS         B         -         -         C         C									
Minor Lane/Major Mvmt         EBL         EBT         WBT         WBR SBLn1 SBLn2           Capacity (veh/h)         756         -         -         226         331           HCM Lane V/C Ratio         0.06         -         -         0.028         0.305           HCM Control Delay (s)         10.1         -         -         21.4         20.6           HCM Lane LOS         B         -         -         C         C		0.6				0			
Capacity (veh/h) 756 226 331  HCM Lane V/C Ratio 0.06 0.028 0.305  HCM Control Delay (s) 10.1 21.4 20.6  HCM Lane LOS B C C	HCM LOS							С	
Capacity (veh/h) 756 226 331  HCM Lane V/C Ratio 0.06 0.028 0.305  HCM Control Delay (s) 10.1 21.4 20.6  HCM Lane LOS B C C									
HCM Lane V/C Ratio       0.06       -       -       -       0.028       0.305         HCM Control Delay (s)       10.1       -       -       21.4       20.6         HCM Lane LOS       B       -       -       C       C	Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR SBLn1	SBLn2			
HCM Lane V/C Ratio       0.06       -       -       -       0.028       0.305         HCM Control Delay (s)       10.1       -       -       21.4       20.6         HCM Lane LOS       B       -       -       C       C	Capacity (veh/h)	756	_	-	- 226	331			
HCM Control Delay (s) 10.1 21.4 20.6 HCM Lane LOS B C C			-	-					
HCM Lane LOS B C C			-	-					
			-	-					
	HCM 95th %tile Q(veh)	0.2	-	-		1.3			

Intersection							
Int Delay, s/veh	6.6						
Movement		EBT	EBR	WE	L WBT	NBL	NBR
Vol, veh/h		520	167		7 821	85	21
Conflicting Peds, #/hr		0	0		0 0		0
Sign Control		Free	Free	Fre			Stop
RT Channelized		-	None	110	- None		None
Storage Length		_	-			0	-
Veh in Median Storage, #	#	0	_		- 0		-
Grade, %		0	_		- 0		_
Peak Hour Factor		96	96	Ç	6 96		96
Heavy Vehicles, %		1	2		0 4		0
Mvmt Flow		542	174		9 855		22
Major/Minor	N.	loior1		Mola	2	Minari	
Major/Minor	IV	1ajor1	0	Major		Minor1	/20
Conflicting Flow All		0	0	71			629
Stage 1		-	-			629	-
Stage 2		-	-		 1	932	- ( )
Critical Hdwy		-	-	4		0.11	6.2
Critical Hdwy Stg 1		-	-			0.71	-
Critical Hdwy Stg 2		-	-			0.71	-
Follow-up Hdwy		-	-	2		3.307	3.3
Pot Cap-1 Maneuver		-	-	89		127	486
Stage 1		-	-			533	-
Stage 2		-	-			385	-
Platoon blocked, %		-	-	00	-	44.1	407
Mov Cap-1 Maneuver		-	-	89			486
Mov Cap-2 Maneuver		-	-			114	-
Stage 1		-	-			533	-
Stage 2		-	-			353	-
Approach		EB		W	В	NB	
HCM Control Delay, s		0		0	4	99.6	
HCM LOS						F	
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL WB	T		
Capacity (veh/h)	134	-	-	894	-		
HCM Lane V/C Ratio	0.824	_		0.043	-		
HCM Control Delay (s)	99.6	_	_		0		
HCM Lane LOS	77.0 F	_	-		A		
HCM 95th %tile Q(veh)	5.1	_	_	0.1	-		
110111 70111 701110 Q(VOII)	0.1			0.1			

Intersection													
Int Delay, s/veh	5.1												
in Bolay 5, von	0.1												
Movement	EBL	EBT	EBR	WBL	WBT	WBR		NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	23	507	68	50	816	31		41	4	28	10	5	16
Conflicting Peds, #/hr	0	0	0	0	0	0		0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free		Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None		-	-	None	-	-	None
Storage Length	-	-	-	-	-	-		-	-	-	-	-	140
Veh in Median Storage, #	‡ -	0	-	-	0	-		-	0	-	-	0	-
Grade, %	-	0	-	-	0	-		-	0	-	-	0	-
Peak Hour Factor	97	97	97	97	97	97		97	97	97	97	97	97
Heavy Vehicles, %	0	1	2	4	1	0		0	0	0	0	0	0
Mvmt Flow	24	523	70	52	841	32		42	4	29	10	5	16
Major/Minor	Major1			Major2				Minor1			Minor2		
Conflicting Flow All	873	0	0	593	0	0		1568	1581	558	1582	1600	857
Stage 1	-	-	-	-	-	-		605	605	-	960	960	-
Stage 2	-	-	-	-	-	-		963	976	-	622	640	-
Critical Hdwy	4.1	-	-	4.14	-	-		7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-		6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-		6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.236	-	-		3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	781	-	-	973	-	-		91	110	533	89	107	360
Stage 1	-	-	-	-	-	-		488	491	-	311	338	-
Stage 2	-	-	-	-	-	-		310	332	-	478	473	-
Platoon blocked, %		-	-		-	-							
Mov Cap-1 Maneuver	781	-	-	973	-	-		74	94	533	72	91	360
Mov Cap-2 Maneuver	-	-	-	-	-	-		74	94	-	72	91	-
Stage 1	-	-	-	-	-	-		466	468	-	297	303	-
Stage 2	-	-	-	-	-	-		260	297	-	428	451	-
Approach	EB			WB				NB			SB		
HCM Control Delay, s	0.4			0.5				86.5			38.5		
HCM LOS	0, 1			0.0				F			E		
= 2 2								•					
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR WBL	WBT	WBR S	SBLn1	SBLn2					
Capacity (veh/h)	112	781	-	- 973	-	-	77	360					
HCM Lane V/C Ratio	0.672	0.03	-	- 0.053	-	-							
HCM Control Delay (s)	86.5	9.8	0	- 8.9	0	-	63.1	15.5					
HCM Lane LOS	F	Α	Α	- A	Α	-	F	С					
HCM 95th %tile Q(veh)	3.5	0.1	-	- 0.2	-	-	0.7	0.1					

Intersection												
Int Delay, s/veh	0.7											
·												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBI	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	1	533	0	24	910	7		9 0	19	0	1	4
Conflicting Peds, #/hr	0	0	0	0	0	0		3 0	0	0	0	3
Sign Control	Free	Free	Free	Free	Free	Free	Sto	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None			None	-	-	None
Storage Length	-	-	-	-	-	-			-	-	-	-
Veh in Median Storage, #	<u>.</u>	0	-	-	0	-		- 0	-	-	0	-
Grade, %	-	0	-	-	0	-		- 0	-	-	0	-
Peak Hour Factor	96	96	96	96	96	96	9	5 96	96	96	96	96
Heavy Vehicles, %	0	1	0	8	1	0		0 0	5	0	0	0
Mvmt Flow	1	555	0	25	948	7		9 0	20	0	1	4
Major/Minor	Major1			Major2			Minor			Minor2		
Conflicting Flow All	958	0	0	558	0	0	156		558	1575	1565	955
Stage 1	-	-	-	-	-	-	560		-	1005	1005	-
Stage 2	-	-	-	-	-	-	100		-	570	560	-
Critical Hdwy	4.1	-	-	4.18	-	-	7.		6.25	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.	1 5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.272	-	-	3.	5 4	3.345	3.5	4	3.3
Pot Cap-1 Maneuver	726	-	-	983	-	-	9	112	523	90	113	316
Stage 1	-	-	-	-	-	-	51	5 514	-	294	322	-
Stage 2	-	-	-	-	-	-	29:	321	-	510	514	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	726	-	-	983	-	-	8	5 105	522	83	106	315
Mov Cap-2 Maneuver	-	-	-	-	-	-	8	5 105	-	83	106	-
Stage 1	-	-	-	-	-	-	51	1 512	-	293	304	-
Stage 2	-	-	-	-	-	-	27:	303	-	490	512	-
Approach	EB			WB			NE	}		SB		
HCM Control Delay, s	0			0.2			26.4			21.3		
HCM LOS				V.2			[			C		
							-					
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR WBL	WBT	WBR S	SBI n1					
Capacity (veh/h)	197	726	-	- 983	-	- VVDIC	226					
HCM Lane V/C Ratio	0.148	0.001	-	- 0.025	-		0.023					
HCM Control Delay (s)	26.4	10	0	- 8.8	0	-	21.3					
HCM Lane LOS	D	A	A	- A	A	_	C C					
HCM 95th %tile Q(veh)	0.5	0	-	- 0.1	_	-	0.1					
110W 73W 70W Q(VCH)	0.5	U	=	- 0.1	-	-	U. I					

	<b>*</b>	٠	74	Ļ	4	•	×	4	+	×	•	
Lane Group	EBL2	EBL	EBR	SBL	SBR	SEL	SET	SER	NWL	NWT	NWR	
Lane Configurations	ሻ		7				<b>^</b>	7	ሻ	<b>^</b>	7	
Volume (vph)	278	0	185	0	0	0	655	648	327	35	520	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	
Grade (%)		0%		0%			0%			0%		
Storage Length (ft)		0	100	0	0	0		185	570		0	
Storage Lanes		1	1	0	0	0		1	1		1	
Taper Length (ft)		25		25		25			25			
Satd. Flow (prot)	1770	0	1599	0	0	0	3574	1599	1787	1900	1599	
Flt Permitted	0.950								0.311			
Satd. Flow (perm)	1770	0	1599	0	0	0	3574	1565	585	1900	1599	
Right Turn on Red			Yes					Yes			Yes	
Satd. Flow (RTOR)			428					668			536	
Link Speed (mph)		30		30			45			45		
Link Distance (ft)		3209		245			551			747		
Travel Time (s)		72.9		5.6			8.3			11.3		
Confl. Peds. (#/hr)								1				
Confl. Bikes (#/hr)								-				
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Heavy Vehicles (%)	2%	0%	1%	0%	0%	0%	1%	1%	1%	0%	1%	
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	
Parking (#/hr)	J	· ·	J	J			J	J	J	· ·	· ·	
Mid-Block Traffic (%)		0%		0%			0%			0%		
Shared Lane Traffic (%)		0,0		0,0			0,70			070		
Lane Group Flow (vph)	287	0	191	0	0	0	675	668	337	36	536	
Turn Type	Prot	· ·	Prot	J			NA	Perm	D.P+P	NA	custom	
Protected Phases	4		4				2		1	2.1	Free	
Permitted Phases	•		4				_	2	2			
Detector Phase	4		4				2	2	1	2 1		
Switch Phase	•		•				_	_	•			
Minimum Initial (s)	10.0		10.0				15.0	15.0	10.0			
Minimum Split (s)	21.5		21.5				23.0	23.0	15.5			
Total Split (s)	40.0		40.0				60.0	60.0	30.0			
Total Split (%)	30.8%		30.8%				46.2%	46.2%	23.1%			
Yellow Time (s)	4.0		4.0				5.0	5.0	4.0			
All-Red Time (s)	1.5		1.5				2.0	2.0	1.5			
Lost Time Adjust (s)	0.0		0.0				0.0	0.0	0.0			
Total Lost Time (s)	5.5		5.5				7.0	7.0	5.5			
Lead/Lag	5.5		5.5				Lag	Lag	Lead			
Lead-Lag Optimize?							Yes	Yes	Yes			
Recall Mode	None		None				Min	Min	None			
Act Effct Green (s)	20.5		20.5				29.7	29.7	46.9	51.1	84.9	
Actuated g/C Ratio	0.24		0.24				0.35	0.35	0.55	0.60	1.00	
v/c Ratio	0.24		0.24				0.53	0.33	0.55	0.00	0.34	
Control Delay	39.8		0.27				24.6	5.9	13.9	7.8	0.54	
3	0.0		0.9				0.0	0.0	0.0	0.0	0.0	
Queue Delay	39.8		0.0					5.9	13.9	7.8		
Total Delay							24.6				0.6	
LOS	D		Α				С	Α	В	Α	Α	

Existing Condiions PM 2/23/2015 Baseline VHB

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	>	۶	74	Į,	4	•	$\mathbf{x}$	4	•	×	*	
Lane Group	EBL2	EBL	EBR	SBL	SBR	SEL	SET	SER	NWL	NWT	NWR	
Approach Delay							15.3			5.8		
Approach LOS							В			Α		
Intersection Summary												
Area Type:	Other											
Cycle Length: 130												
Actuated Cycle Length: 84	1.9											
Natural Cycle: 60												
Control Type: Actuated-Ur	ncoordinated											
Maximum v/c Ratio: 0.68												
Intersection Signal Delay:	13.7			Int	tersection	LOS: B						
Intersection Capacity Utiliz	zation 68.8%			IC	U Level c	f Service	e C					
Analysis Period (min) 15												
Splits and Phases: 6: U	S 1 & Malaba	r Road										
₩ <sub>ø1</sub>	No.	2						- <b>Z</b> ø	4			

## Appendix F

FDOT Generalized Table

## TABLE 7

# Generalized **Peak Hour Directional** Volumes for Florida's **Urbanized Areas**<sup>1</sup>

12/18/12

											12/18/12
	INTERR	UPTED FLO	OW FACI	LITIES			UNINTER	RRUPTED	FLOW FA	CILITIES	
	STATE SIGNALIZED ARTERIALS							FREEV	VANC		
	STATE SIGNALIZED ARTERIALS					Lanes	В	rkeev C	VAIS	D	Е
	Class I (40	mph or highe	er posted sp	peed limit)		2	2,260	3,02	0 3	3,660	3,940
Lanes	Median	В	C	D	E	3					6,080
1	Undivided	*	830	880	**		3,360	4,58		5,500	
2	Divided	*	1,910	2,000	**	4	4,500	6,08		7,320	8,220
3	Divided	*	2,940	3,020	**	5	5,660	7,68		9,220	10,360
4	Divided	*	3,970	4,040	**	6	7,900	10,32	0 12	2,060	12,500
7	Divided		3,970	4,040							
_	Class II (35	•			_			reeway Ad	justment		
Lanes	Median	В	С	D	Е		Auxiliary			Ramp	
1	Undivided	*	370	750	800		Lane + 1,000			Metering + 5%	
2	Divided	*	730	1,630	1,700		+ 1,000			+ 5%	
3	Divided	*	1,170	2,520	2,560						
4	Divided	*	1,610	3,390	3,420						
	ŀ	gnalized Re corresponding by the indicated Signalized Re	g state volun d percent.)		ats						
	Median	& Turn La	ne Adjus	tments		١,	JNINTERR	IIDTED I		TCTIX/A	VC
		Exclusive	Exclus		ljustment						
Lanes	Median	Left Lanes	Right L		Factors	Lanes	Median	B 420	C	D	E
1	Divided	Yes	No		+5%	$\begin{bmatrix} 1 \\ 2 \end{bmatrix}$	Undivided	420	840	1,190	1,640
1	Undivided	No	No		-20%	2	Divided	1,810	2,560	3,240	3,590
Multi	Undivided	Yes	No		-5%	3	Divided	2,720	3,840	4,860	5,380
Multi	Undivided	No -	No Yes		-25% + 5%						
_	_	_	168	•	+ 3%		Uninterrupt				
	One V	Vay Facility	v Adinetr	nont		Lanes	Median	Exclusive			ent factors
		y the correspo				1	Divided	Ye		+5	
		lumes in this				Multi	Undivided	Ye		-5	
						Multi	Undivided	No	0	-25	5%
		TOWAL E	MODE?			lan 4					
		ICYCLE			c		shown are presented ne automobile/truck				
(M)	ultiply motorized ctional roadway l	venicle volum	es snown be	low by numi	per of	constitut	e a standard and sho	ould be used only	y for general p	lanning applica	tions. The
dire	ctional foldway i	volume		maximam s	CIVICC		r models from which applications. The ta				
Dorrad	Chauldan/Diar	rala					or intersection design				
	Shoulder/Bicy		C	ъ	Б		planning applicatio		ay Capacity N	Manual and the	Γransit
La	ne Coverage	B *	C	D	E	Capacity	and Quality of Serv	vice Manual.			
	0-49%		150	390	1,000	<sup>2</sup> Level o	of service for the bic	ycle and pedestr	rian modes in	this table is base	ed on number
	50-84%	110	340	1,000	>1,000	of motor	ized vehicles, not no	umber of bicycli	ists or pedestri	ians using the fa	cility.
	85-100%	470	1,000	>1,000	**	<sup>3</sup> Buses p	er hour shown are on	ly for the peak ho	our in the single	direction of the	higher traffic
	PEI	DESTRIA	N MOD	$\mathbb{E}^2$		flow.		-y p			6
(M	ultiply motorized				per of	* Canno	ot be achieved using	table input valu	e defaults.		
	ctional roadway l										
	•	volume	•				pplicable for that le				
Side	walk Coverag	e B	С	D	Е		greater than level o ched. For the bicycle				
	0-49%	*	*	140	480	achievab	le because there is 1			_	
	50-84%	*	80	440	800	value de					
	85-100%	200	540	880	>1,000						
	<b>BUS MOD</b>	•		,	,						
		in peak hour is	_	tion)		Source:					
Side	walk Coverag		C	D	E		Department of Trans	portation			
	0-84%	> 5	$\geq 4$	$\geq 3$	$\geq 2$		Planning Office	-larget a mark	/d of o-1, 1,		
	85-100%	> 4	$\geq 3$	$\geq 2$	≥ 1	www.do	t.state.fl.us/planning	ysystems/sm/los	s/derault.shtm		

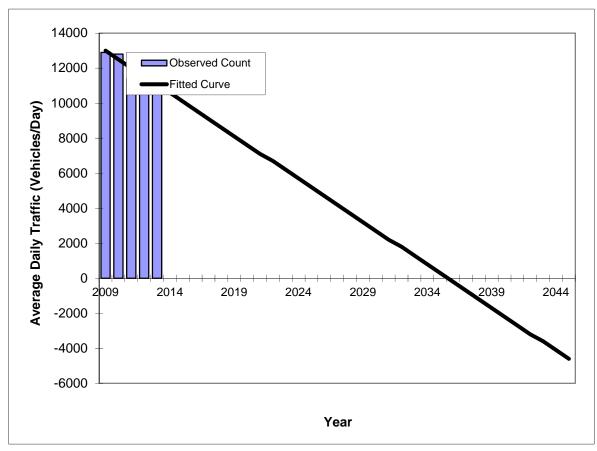
## Appendix G

Trends Analysis Sheets

FIN#	430136-1
Location	3

County:	nty: Brevard (70)	
Station #:	700127	
Highway:	MALABAR RD.	

Traffic (ADT/AADT)



Year	Count*	I rend**
2009	12900	13000
2010	12800	12500
2011	11400	12000
2012	12500	11600
2013	10600	11100
	5 Opening Yea	
2025	N/A	5200
	035 Mid-Year T	
2035	N/A	300
	45 Design Year	
2045	N/A	-4600
TRAN	PLAN Forecas	ts/Trends

\*\* Annual Trend Increase: -490
Trend R-squared: 59.85%
Trend Annual Historic Growth Rate: -3.65%
Trend Growth Rate (2013 to Design Year): -4.42%
Printed: 2-Mar-15

Straight Line Growth Option

<sup>\*</sup>Axle-Adjusted

FIN#	430136-1
Location	2

County:	Brevard (70)	
Station #:	700379	
Highway:	MALABAR RD.	

25000		Observ	ed Count					
(Day)		Fitted (		_				
Average Daily Traffic (Vehicles/Day) 0000 0000 0000								
e Daily Traff	_							
	<del></del>							
0	2009	2014	2019	2024	2029	2034	2039	2044
				Y	'ear			

	Traffic (AD	T/AADT)
Year	Count*	Trend**
2009	17600	17100
2010	17000	17300
2011	17200	17500
2012	17000	17600
2013	18500	17800
	5 Opening Yea	
2025	N/A	20000
	035 Mid-Year T	
2035	N/A	21800
	15 Design Year	
2045 TD 4 N	N/A	23600
IRAN	PLAN Forecas	is/Trends

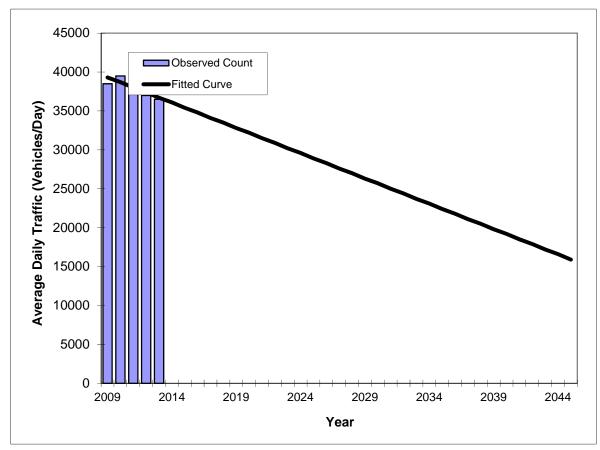
\*\* Annual Trend Increase: 180
Trend R-squared: 20.35%
Trend Annual Historic Growth Rate: 1.02%
Trend Growth Rate (2013 to Design Year): 1.02%
Printed: 2-Mar-15

Straight Line Growth Option

\*Axle-Adjusted

FIN#	430136-1
Location	1

County:	Brevard (70)	
Station #:	700427	
Highway:	MALABAR RD.	



	Traffic (ADT/AADT)						
Year	Count*	Trend**					
2009	38500	39300					
2010	39500	38700					
2011	38500	38000					
2012	37000	37400					
2013	36500	36700					
000		_					
	5 Opening Yea						
2025	N/A	28900					
	035 Mid-Year T						
2035	N/A 15 Design Year	22400 Trond					
2045	N/A	15900					
	PLAN Forecas						
IIVAIN	I LANT DIECAS	to/ Herius					

\*\* Annual Trend Increase: -650
Trend R-squared: 70.42%
Trend Annual Historic Growth Rate: -1.65%
Trend Growth Rate (2013 to Design Year): -1.77%
Printed: 2-Mar-15
Straight Line Growth Option

<sup>\*</sup>Axle-Adjusted

FIN#	430136-1
Location	4

County:	Brevard (70)			
Station #:	700127			
Highway:	MALABAR RD.			

	16000 —							
	14000		served Count					
5	12000	Fitt	ed Curve					
s/Day	10000							
hicle	8000							
) S	6000							
Traff	4000							
Daily	2000							
Average Daily Traffic (Vehicles/Day)	0 0 200	9 2014	2019	2024	2029	2034	2039	2044
Ave	-2000			-				
	-4000							
	-6000							
				Y	'ear			

\*\* Annual Trend Increase: -480
Trend R-squared: 75.00%
Trend Annual Historic Growth Rate: -3.54%
Trend Growth Rate (2013 to Design Year): -4.18%
Printed: 2-Mar-15

Straight Line Growth Option

\*Axle-Adjusted

## Appendix H

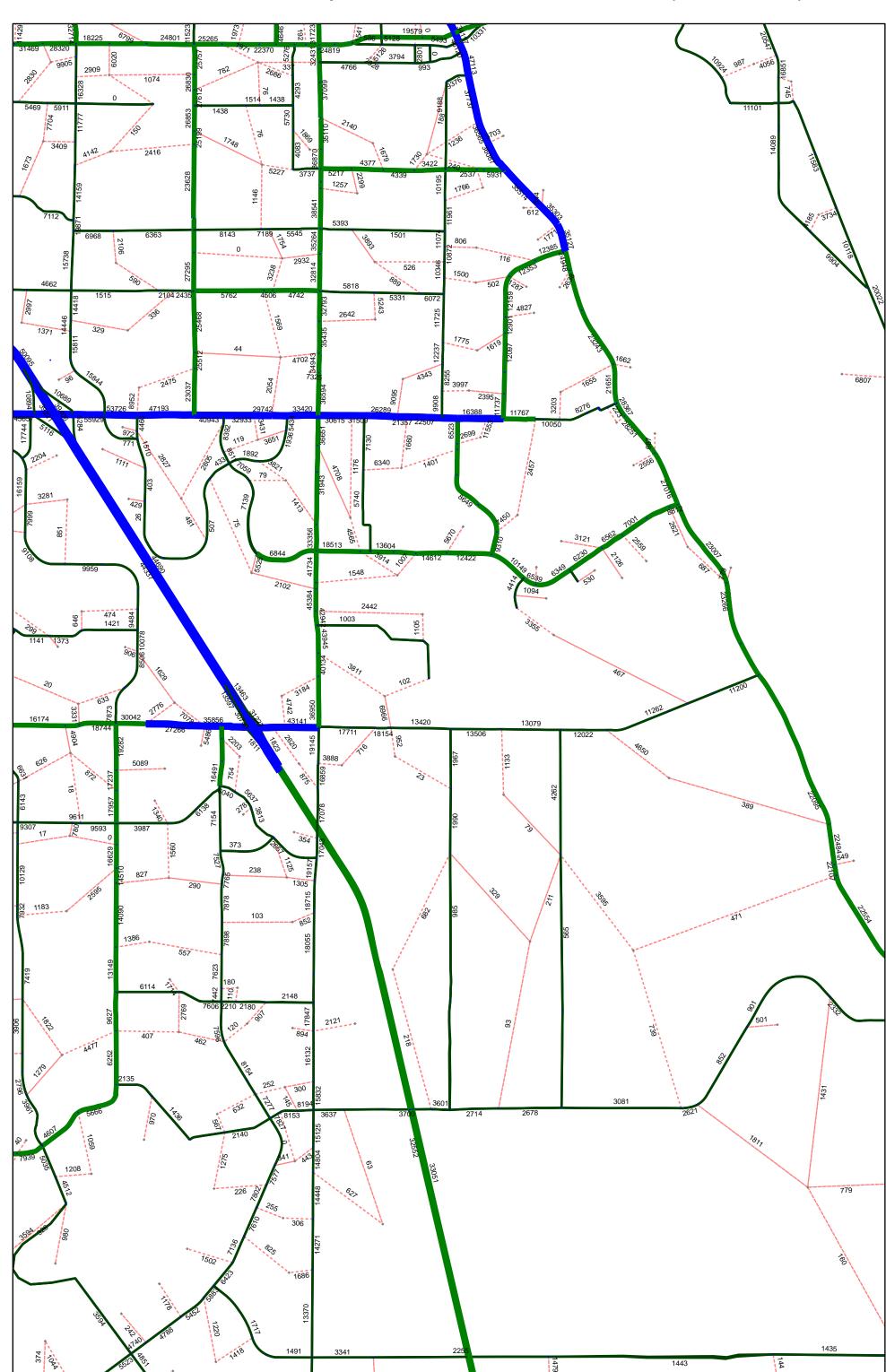
BEBR Population Projections for Brevard County

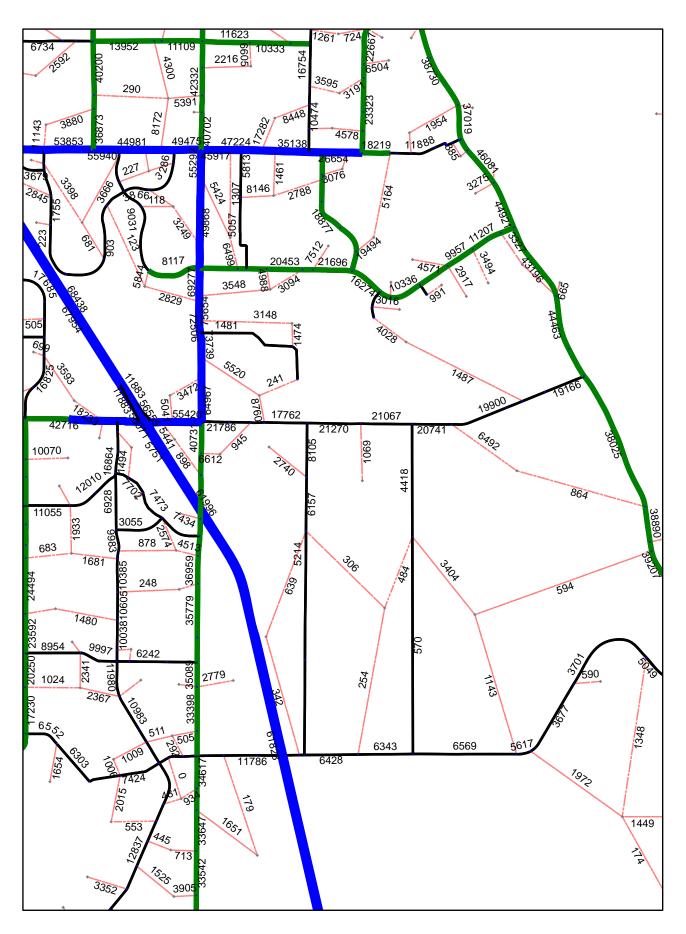
# Projections of Florida Population by County, 2015-2040, with Estimates for 2013

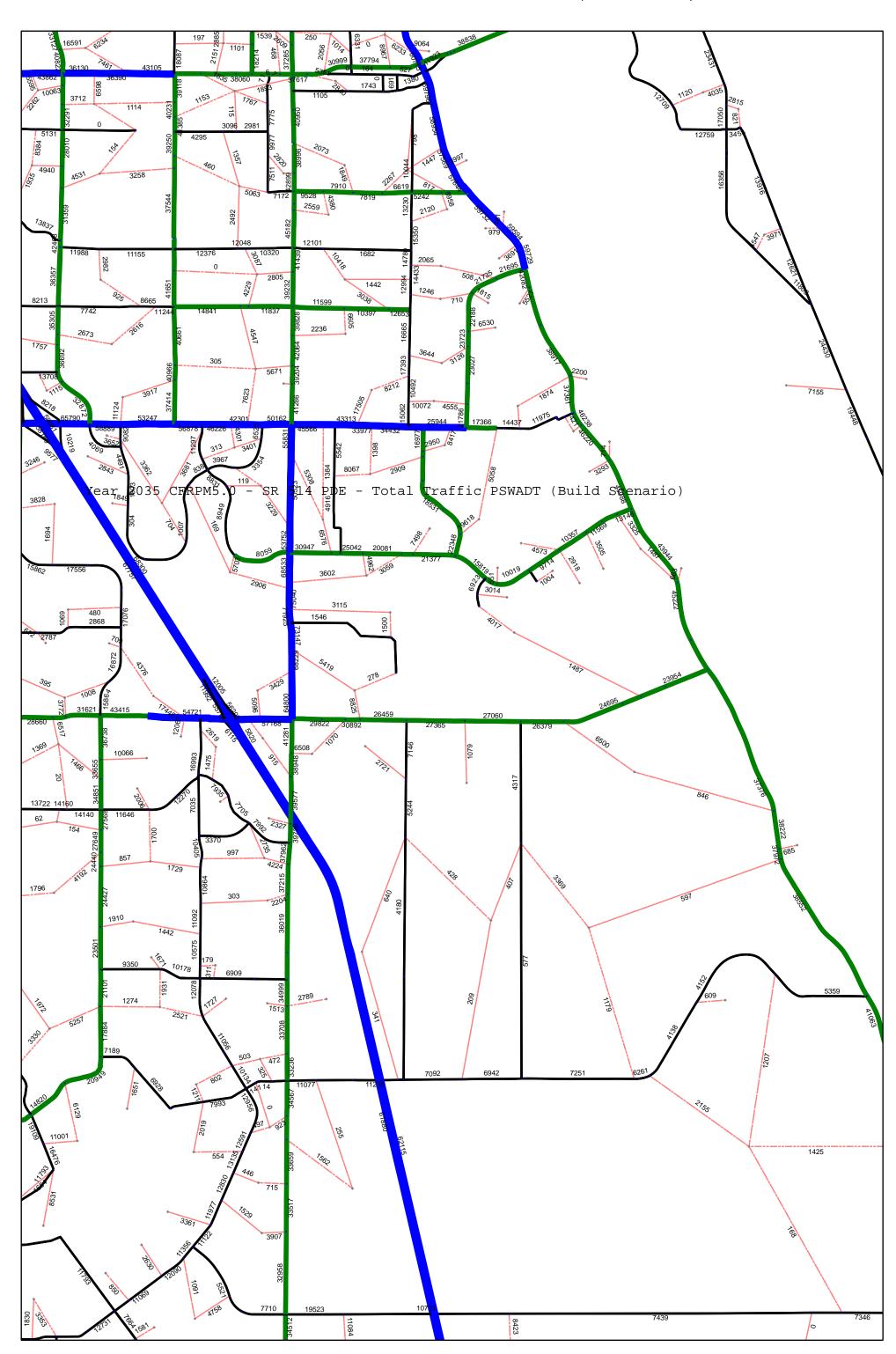
	Estimates			Projection	ns, April 1		
te	April 1, 2013	2015	2020	2025	2030	2035	2040
14	240.002						
Α	248,002	237,400	241,800	244,800	245,800	244,900	242,400
m		252,600	265,700	278,200	289,200	298,600	306,800
		267,700	289,600	311,500	332,500	352,400	371,300
	26,881						
		26,000	26,900	27,700	28,200	28,400	28,400
n		27,600	29,600	31,500	33,200	34,600	36,000
		29,300	32,300	35,200	38,100	40,900	43,500
	169,866						
		162,900	166,400	168,700	170,000	170,200	168,800
m		173,300 183,700	182,800 199,300	191,700 214,800	200,000 230,000	207,600 245,000	213,700 258,500
		105,700	199,500	214,000	250,000	245,000	230,300
)RD	27,217	3F 000	3E 900	3F F00	25 200	24 700	24.000
m		25,900 27,500	25,800 28,300	25,500 29,000	25,200 29,600	24,700 30,100	24,000 30,400
		29,200	30,900	32,500	34,000	35,500	36,800
.D	548.424						
_	310,121	525,000	536,300	542,500	543,800	541,200	535,200
<mark>m</mark>		558,500	589,300	616,400	639,800	660,000	677,500
		592,000	642,400	690,400	735,700	778,800	819,700
RD	1,784,715						
		1,694,800	1,688,900	1,673,900	1,655,500	1,632,100	1,603,700
m		1,803,000 1,911,200	1,855,900 2,023,000	1,902,200 2,130,500	1,947,700 2,239,800	1,990,300 2,348,600	2,029,900 2,456,200
		1/311/200	2,023,000	2/130/300	2/233/000	2/3 10/000	2, 130,200
JN	14,621	12.600	12 F00	12 200	12 100	12 700	12 200
m		13,600 14,800	13,500 15,400	13,300 15,900	13,100 16,300	12,700 16,700	12,200 17,000
		16,000	17,200	18,400	19,600	20,700	21,800
TTE	163,679						
	200/075	156,300	158,500	159,200	158,900	158,100	156,200
n		166,300	174,100	181,000	187,000	192,800	197,700
		176,300	189,800	202,700	215,000	227,500	239,300
	140,519						
		135,200	139,300	142,500	144,300	144,800	144,300
m		143,800 152,400	153,100 166,900	161,900 181,300	169,800 195,300	176,600 208,400	182,700 221,000
		132/100	100/300	101,500	133,300	200/100	221,000
	192,843	188,600	200,400	209,100	215,000	218,200	217,900
m		200,700	222,700	243,200	262,200	279,700	294,500
		212,700	244,900	277,200	309,400	341,300	371,000
₹	333,663						
	555,555	324,400	344,900	362,000	375,600	385,900	389,100
m		345,100	379,100	411,400	441,900	470,600	492,500
		365,800	413,200	460,700	508,200	555,300	596,000
BIA	67,489						
m		64,800 68,900	66,300 72,900	67,500 76,700	68,100 80,100	68,000 83,000	67,600 85,500
11		73,000	79,400	85,900	92,100	97,900	103,500
0	24.267						
J	/۵۵ <del>/۲</del> د	32.400	31.900	31.100	30.200	29.500	28,600
m		34,500	35,000	35,400	35,600	36,000	36,300
		36,600	38,200	39,600	40,900	42,400	43,900
	16,263						
	•	15,300	15,500	15,500	15,400	15,200	14,800
n				18,500 21 400			20,600 26,300
		17,300	13,700	21,400	23,100	۷٦,٥٥٥	20,300
O n n	34,367 16,263	36,600	38,200	39,600	40,900	42,400	

### Appendix I

Year 2035 Model Plots for No-Build and Build Alternatives

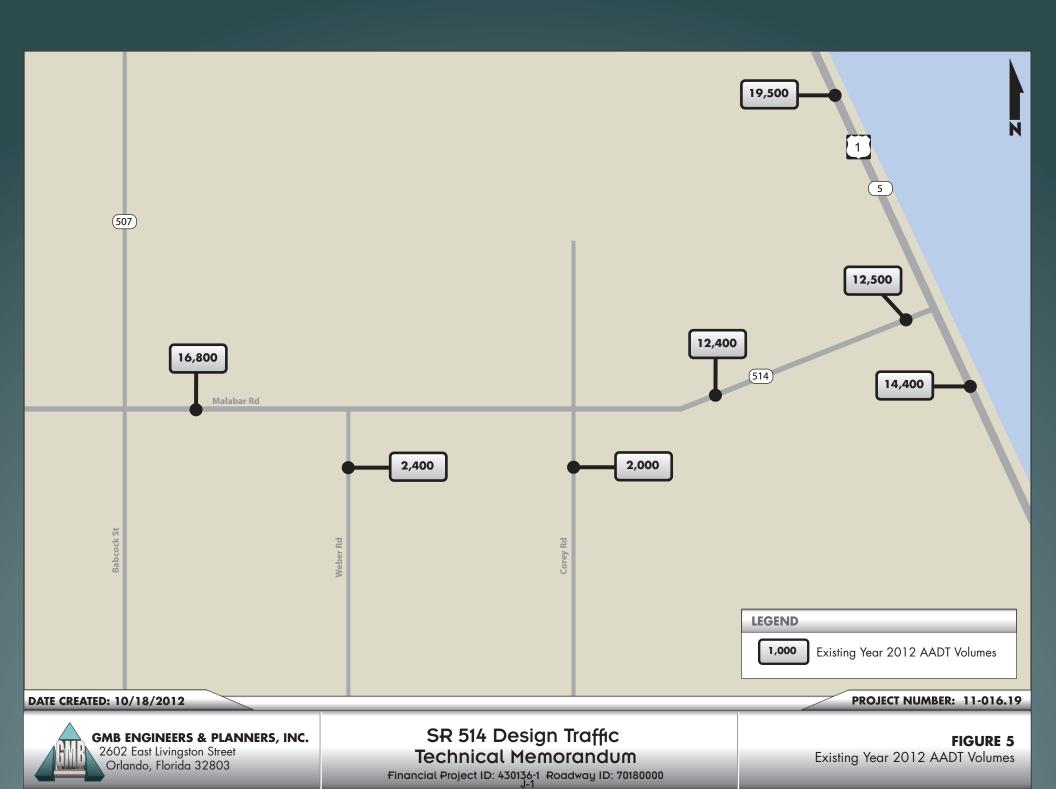


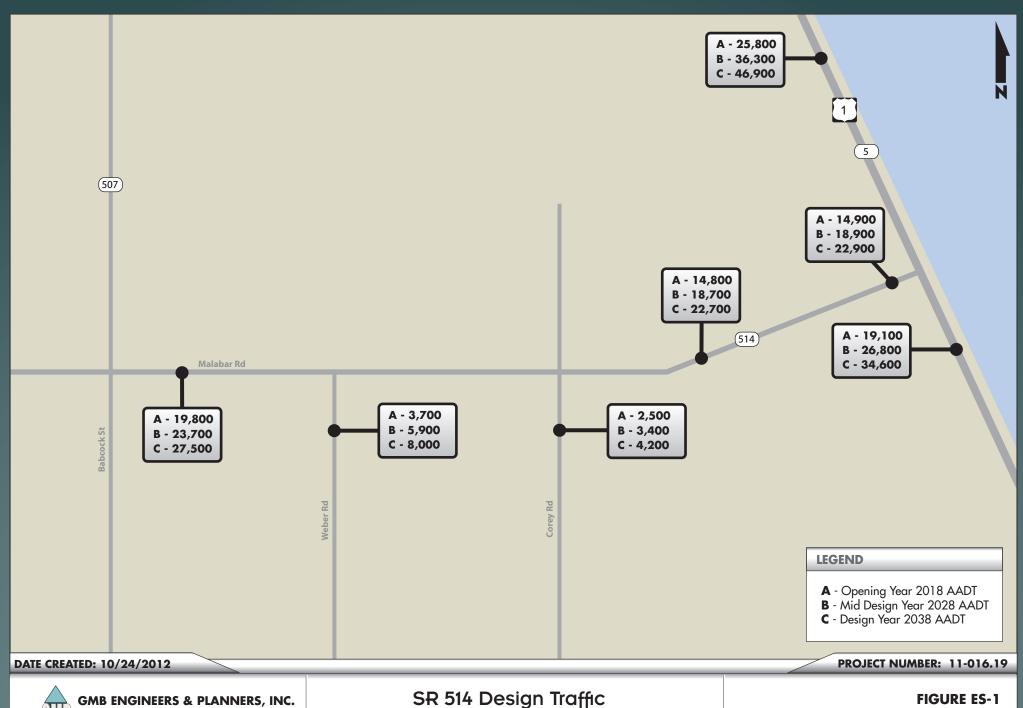




### Appendix J

Year 2038 AADTs from previous SR 514 Design Traffic Technical Memorandum





**GMB ENGINEERS & PLANNERS, INC.** 2602 East Livingston Street Orlando, Florida 32803

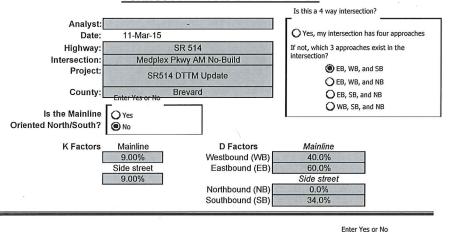
### SR 514 Design Traffic **Technical Memorandum**

Financial Project ID: 430136-1 Roadway ID: 70180000

Future AADT Volumes **Build Scenario** 

## Appendix K

TURNS 5 Sheets



12025 NB

Do you have FTSUTMS Model Year traffic from which you would like to interpolate/extrapolate for project years? (Y/N)

If "Yes" go to cell C47

If "No" go to cell C31

Yes

O No

0

Enter Year and Growth Rates from Base Year: Year Rate (1.0% = 0.01) Linear Base 2015 Mainline Side Street Exponential Opening O Decaying Side Street Growth Function 0.00% 0.00% Mid 2035 Design ( Linear Enter Base Year AADTs for Volume Comparison: Exponential (growth rates are used to calculate other project years) O Decaying From West: From East: From North: From South: TOTAL NB Approach WB Approach SB Approach EB Approach

**Enter Project and Model Years** 

Υ	ear
Base	2015
Opening	2021
Mid	2022
Design	2025
Model	2025

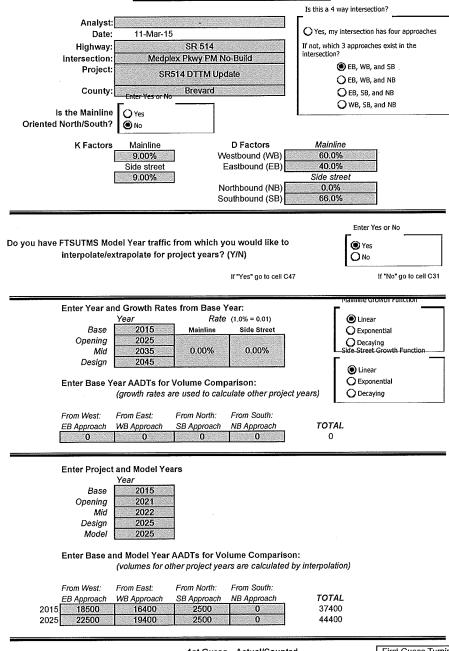
Enter Base and Model Year AADTs for Volume Comparison: (volumes for other project years are calculated by interpolation)

	From West:	From East:	From North:	From South:	
	EB Approach	WB Approach	SB Approach	NB Approach	TOTAL
2015	18500	16400	2500	0	37400
2025	22500	19400	2500	0	44400

First Guess Turning % Option Used 1st Guess Actual/Counted **Existing Turning Movement Counts** Turning %'s for Traffic AADT Balancing for 2015 (EB LT) West-to-North 11.1% Only the existing year total **Existing Year** (EB THRU) West-to-East 88.9% 787 departure volumes [AADT\*K\*(1-D)] **AADTs** (EB RT) West-to-South 0.0% will be used to calculate the turning percentages first guess. (WB LT) East-to-South 0.0% (WB THRU) 98.4% 635 East-to-West (WB RT) East-to-North 1.6% 10 The turning percentages first guess Existing Turning is the same as the actual (SB LT) Movement North-to-East 7.0% distribution of turning volumes Counts (SB THRU) North-to-South 0.0% entered. No balancing technique is (SB RT) North-to-West 93.0% 40 (NB LT) South-to-West 0.0% Only the FSUTMS model year (NB THRU) South-to-North 0.0% **FSUTMS Model** departure volumes [AADT\*K\*(1-South-to-East (NB RT) 0.0% Year AADTs D)] will be used to calculate the turning percentages first guess. Desired Closure: 2.00

(18000)(19000) D Factors 40.0% WB 60.0% EB D Factors 40.0% WB 60.0% EB 34.0% SB 34.0% SB 655 869 1.7% 0.0% 687 98.4% SR 514 SR 514 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2025 Medplex Phay AM No-Build DESIGN HOUR TURNING MOVEMENTS IN YEAR 2021 644 Medplex Pkwy AM No-Build Medplex Pkwy AM No-Build 0.0% 0 6.5% Medplex Pkwy AM No-Build (2500) 0.0% %0.0 0.0% %0.0 PROJECT TRAFFIC FOR SR 514 AT Medplex Pkwy AM No-Build 93.4% 93.5% 139 12.3<u>%</u> 1129 87.<u>7%</u> 0.0% 11.<u>7%</u> 1215 88.3% 0.0% SR 514 SR 514 2025 AADT 2025 DDHV 9.00% 9.00% 2024 AADT 2021 DDHV 9.00% XXXX XXXX K ML = K SS = (21000)(23000)XXX (16000) (19000) D Factors 40.0% WB 60.0% EB D Factors 40.0% WB 60.0% EB 34.0% SB 34.0% SB 290 999 98.1% 655 98.4% 1.6% SR 514 1.9% SR 514 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2015 579 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2022 Medplex Pkwy AM No-Build (2500) 0.0% Medplex Pkwy AM No-Build Medplex Pkwy AM No-Build 6.5% 6.8% Medplex Pkwy AM No-Build (2500) 0.0% 0.0% 0.0% 0.0% 93.2% 93.5% 1010 135 **★** 140 13.5% 999 86.5% 8 0.0% 12.2% 1150 87.8% 0.0% SR 514 SR 514 2015 AADT 2015 DDHV 9.00% 2022 AADT 2022 DDHV 9.00% 9.00% XXXXX) XXXXX K MR = K SS = K ML = K SS = (XXXXX) (21000)

K-2



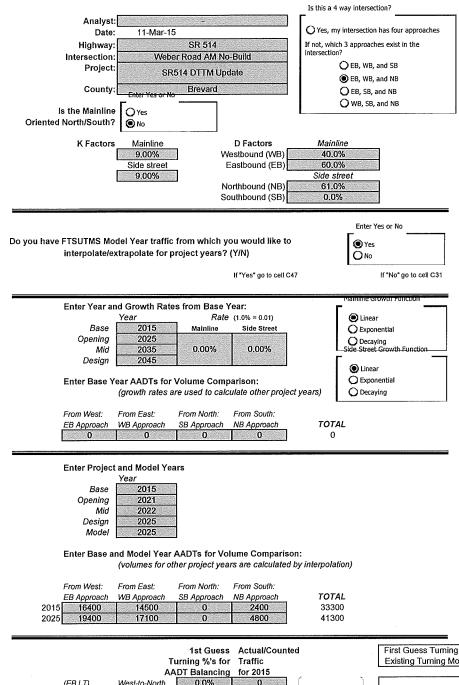
		furning %'s for	Actual/Counte Traffic for 2015	d	First Guess Turning % Option Used Existing Turning Movement Counts
(EB LT) (EB THRU) (EB RT)	West-to-North West-to-East West-to-South	5.8% 94.2% 0.0%	43 695 0	Existing Year AADTs	Only the existing year total departure volumes [AADT*K*(1-D)] will be used to calculate the
(WB LT) (WB THRU) (WB RT)	East-to-South East-to-West East-to-North	0.0% 99.1% 0.9%	0 864 8	( )	turning percentages first guess.  The turning percentages first guess
(SB LT) (SB THRU) (SB RT)	North-to-East North-to-South North-to-West	5.9% 0.0% 94.1%	6 0 96	Existing Turning  Movement  Counts	is the same as the <u>actual</u> <u>distribution of turning volumes</u> <u>entered</u> . No balancing technique is used.
(NB LT) (NB THRU) (NB RT)	South-to-West South-to-North South-to-East	0.0% 0.0% 0.0%	0 0 0	FSUTMS Model Year AADTs	Only the FSUTMS model year departure volumes [AADT*K*(1-D)] will be used to calculate the

(18000)(19000) D Factors 60.0% WB 40.0% EB D Factors 60.0% WB 40.0% EB 66.0% SB 66.0% SB 1048 983 **★** 1035 98.8% 0 0.0% 970 98.7% 0.0% SR 514 SR 514 Medplex Pkwy PM No-Build DESIGN HOUR TURNING MOVEMENTS IN YEAR 2025 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2021 Medplex Pkwy PM No-Build Medplex Pkwy PM No-Build 5.3% 0 Medplex Pkwy PM No-Build 0.0% 0.0% 0.0% 0.0% 94.7% 94.8% 741 684 8.5% 810 91.5% 0.0% 9.0% **752** 91.<u>0%</u> 0.0% SR 514 SR 514 2021 AADT 2021 DDHV 9.00% 2025 AADT 2025 DDHV 9.00% 9.00% XXXXX XXXXX K MR = K SS = XXXXX) XXXXX K ML = K SS = (21000)(23000)(16000) (19000)D Factors 60.0% WB 40.0% EB D Factors 60.0% WB 40.0% EB 66.0% SB 66.0% SB 886 666 13 1.5% 873 98.5% 0 0.0% 1.3% 98.7% 0.0% SR 514 SR 514 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2015

Medplex Pkwy PM No-Build 13 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2022 0.0% Medplex Pkwy PM No-Build **Medplex Pkwy PM No-Build** Medplex Pkwy PM No-Build 2.6% 0.0% 0.0% 5.3% 0.0% 0.0% 94.4% ▲ 141 94.7% 8.9% 68 767 91.1% 699 **9** 0.0% 4 99 009 9.9% **666** 90.1% 0.0% SR 514 SR 514 2015 AADT 2015 DDHV 9.00% 2022 AADT 2022 DDHV 9.00% 9.00% XXXX XXXX K MK K (19000)(21000)

PROJECT TRAFFIC FOR SR 514 AT Medplex Pkwy PM No-Build

K-4



	1st Guess Actual/Count Turning %'s for Traffic ADT Balancing for 2015	ed .	First Guess Turning % Option Used Existing Turning Movement Counts
(EB LT) West-to-North (EB THRU) West-to-East (EB RT) West-to-South	0.0%   0   0   0   0   0   0   0   0   0	Existing Year AADTs	Only the existing year total departure volumes [AADT*K*(1-D)] will be used to calculate the
(WB LT) East-to-South (WB THRU) East-to-West (WB RT) East-to-North	2.4%   13   97.6%   530   0.0%   0	Existing Turning	turning percentages first guess.  The turning percentages first guess is the same as the actual
(SB LT) North-to-East (SB THRU) North-to-South (SB RT) North-to-West	0.0% 0 0.0% 0 0.0% 0	Movement Counts	distribution of turning volumes entered. No balancing technique is used.
(NB LT) South-to-West (NB THRU) South-to-North (NB RT) South-to-East	84.3%         145           0.0%         0           15.7%         27	FSUTMS Model Year AADTs	Only the FSUTMS model year departure volumes [AADT*K*{1-D)] will be used to calculate the
Desired Closure:	1.00		turning percentages first guess.

(16000)(17000)D Factors 40.0% WB 60.0% EB 61.0% NB D Factors 40.0% WB 60.0% EB 61.0% NB 578 616 96.2% 3.8% 582 94.4% 5.6% SR 514 SR 514 556 (3800)

Weber Road AM No-Build

DESIGN HOUR TURNING MOVEMENTS IN YEAR 2025

Weber Road AM No-Build DESIGN HOUR TURNING MOVEMENTS IN YEAR 2021 Weber Road AM No-Build 35 16.4% 53 Weber Road AIM No-Build 0.0% 0.0% (4800)0.0% 0.0% 176 83.6% 211 79.8% 0.0% 0.0% PROJECT TRAFFIC FOR SR 514 AT Weber Road AM No-Build 0.0% %0.0 0 0.0% **983** 87.8% 12.2% 0.0% **1048** 86.4% 13.6% SR 514 SR 514 2021-AADT 2021 DDHV 9.00% 9.00% 2025 AADT 2025 DDHV 9.00% 9.00% XXXX K ML = K SS = (18000)X SS = (19000)(XXXXX) (16000) (15000)D Factors 40.0% WB 60.0% EB 61.0% NB D Factors 40.0% WB 60.0% EB 61.0% NB 588 522 96.0% 0 0.0% 509 97.5% 13 2.5% SR 514 SR 514 564 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2015 Weber Road AM No-Build
DESIGN HOUR TURNING MOVEMENTS IN YEAR 2022
Weber Road AM No-Build 0.0% 16.5% 224 (4100) 0.0% 15.5% 132 Weber Road AM No-Build (2400)0.0% 0.0% 112 84.5% 187 83.5% Weber Road AM No-Build 0.0% 0.0% 0.0% 0.0% 873 0.0% **999** 87.4% 12.6% 0.0% 886 91.5% 8.5% SR 514 SR 514 2015 AADT 2015 DDHV 9.00% 9.00% 2022 AADT 2022 DDHV 9.00% K SS = (16000) (19000)

K-6

			Is this a 4	way intersect	ion?
Analyst Date: Highway: Intersection: Project: County: Is the Mainline Oriented North/South?	11-Mar-15 SI Weber Roz SR514 D Enter Yes or No O Yes No	R 514 d PM No-Build TTM Update evard  D Factor Westbound Eastbound	If not, which intersection intersection intersection is seen and maintain with the second sec	th 3 approach 17	and SB and NB and NB
	9.00%	Northbound Southbound	Side s (NB) 39.0	treet %	
Do you have FTSUTMS Mo interpolate/e:	del Year traffic from xtrapolate for projec	-		Enter You Yes No	If "No" go to cell C31
Base Opening Mid Design	2025	Rate (1.0% = 0.0 lainline Side Str. 0.00% 0.00% ne Comparison:	6	■ Linear  □ Expon	ential ng Growth Function
From West: EB Approach		North: From Sou pproach NB Appro 0 0		AL .	
Base Opening Mid Design Model Enter Base a	and Model Years Year  2015 2021 2022 2025 2025  and Model Year AADT (volumes for other pr	oject years are cald	ulated by interpola	tion)	
From West: EB Approach 2015 16400 2025 19400		North: From Sou pproach NB Appro 0 2400 0 4800	ach TOT/ 3330	00	
		st Guess Actual/	Counted		First Guess Turning

		1st Guess Actual/Count	to d	First Guess Turning % Option Used
	-		tea	Existing Turning Movement Counts
		furning %'s for Traffic		Existing running Movement Counts
		ADT Balancing for 2015	C 3	
(EB LT)	West-to-North	0.0% 0	Existing Year	Only the existing year total
(EB THRU)	West-to-East	75.7% 520	AADTs	departure volumes [AADT*K*(1-D)]
(EB RT)	West-to-South	24.3% 167	70013	will be used to calculate the
			` <del></del> f	turning percentages first guess.
(WB LT)	East-to-South	4.3% 37		turning percentages mot gaess.
(WB THRU)	East-to-West	95.7% 821		
(WB RT)	East-to-North	0.0% 0	1	The turning percentages first guess
			Existing Turning	is the same as the actual
(SB LT)	North-to-East	0.0% 0	Movement	distribution of turning volumes
(SB THRU)	North-to-South	0,0% 0	Counts	entered. No balancing technique is
(SB RT)	North-to-West	0.0% 0		used.
, ,				
(NB LT)	South-to-West	80.2% 85	7	
(NB THRU)	South-to-North	0.0% 0	FSUTMS Model	Only the FSUTMS model year
(NB RT)	South-to-East	19.8% 21	Year AADTs	departure volumes [AADT*K*(1-
(112 1(1)	Count to Last	10.070	100,700	D)] will be used to calculate the
Desired Clos	sure:	1.00		turning percentages first guess.

SR 514 38 82 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2021 0.0% Weber Road PIM No-Build %°°° PROJECT TRAFFIC FOR SR 514 AT Weber Road PM No-Build 0.0% 0 €68 0.0% 655 76.2% 23.8% (18000)(15000)783 %0'.26 092 SR 514 0.0% DESIGN HOUR TURNING MOVEMENTS IN YEAR 2015 0.0% Weber Road PM No-Build 0.0% 0.0% 103 **◆** 0

(16000) (17000) D Factors 60.0% WB 40.0% EB 39.0% NB D Factors 60.0% WB 40.0% EB 39.0% NB 867 0.0% 95.6% 4.4% SR 514 **DESIGN HOUR TURNING MOVEMENTS IN YEAR 2025** 0.0% 20.7% 135 35 0.0% 20.8% 168 9 (3800) Weber Road PIM No-Build Weber Road PIM No-Build 107 79.3% 133 79.2% 0.0% Weber Road PM No-Build 0.0% 0.0% **698** 73.0% SR 514 0.0% SR 514 2021 AADT 2021 DDHV 9.00% 2025 AADT 2025 DDHV 9.00% 9.00% XXXXX) XXXXX K WRC = XXXXX XXXX K ML = K SS = (19000)(16000) D Factors 60.0% WB 40.0% EB 39.0% NB D Factors 60.0% WB 40.0% EB 39.0% NB 881 0 0.0% 840 95.4% 41 4.6% SR 514 Weber Road PM No-Build
DESIGN HOUR TURNING MOVEMENTS IN YEAR 2022
Weber Road PM No-Build 0.0% 20.4% 0 30 0.0% 20.7% Weber Road PM No-Build (2400)(4100) 67 79.6% %0.0 113 79.3% 0.0% 0.0% 502 164 0.0% 666 75.4% 24.6% 0.0% 590 82.5% 17.5% SR 514 SR 514 2015 AADT 2015 DDHV 9.00% 9.00% 2022 AADT 2022 DDHV %00°6 X SS = XXXX) K SS = (xxxxx) (16000)(19000)

	IURNOS	ANALI	SIS SHEET -	HAPOI	
				Is this a 4 w	ay intersection?
Analyst		ž.		Γ_	
Date	: 11-Mar-15			Yes, my i	ntersection has four approaches
Highway		SR 514		If not, which	3 approaches exist in the
Intersection	Corey	Road AM No	o-Build	intersection?	
Project	SR51	4 DTTM Up	date		EB, WB, and SB
			udio		EB, WB, and NB
County	Enter Yes or No	Brevard			EB, SB, and NB
Is the Mainline	.Γ <sub>α</sub> <sup>-</sup>				WB, SB, and NB
Oriented North/South?	1 🗸 🐃			1	
Offented North/South	<b>⊚</b> No				
K Factors	Mainline		D Factors	Mainlin	e
	9.00%	٧	/estbound (WB)	40.0%	
	Side street		Eastbound (EB)	60.0%	
	9.00%			Side stre	
			orthbound (NB)	63.0%	
		S	outhbound (SB)	37.0%	
					Enter Yes or No
you have FTSUTMS Mo	del Year traffic fr	om which y	ou would like to		<b>(</b> ) Yes
•	xtrapolate for pro	-			ON <sub>0</sub>
	•	• •	• •		O 110
			If "Yes" go to cell C4	7	If "No" go to cell C31
=	10 41 71				rialinine Growth Function
Enter Year a	nd Growth Rates Year			Γ	A.:
Base	2015	Mainline	(1.0% = 0.01) Side Street		● Linear ○ Exponential
Opening	2025	mannine	Cide Officer		O Decaying
Mid	2035	0.00%	0.00%	L.,	Side Street Growth Function
Design	2045			Г	_
					Linear
Enter Base Y	ear AADTs for Vo			,	O Exponential
	(growth rates are	used to call	culate other projec	t years)	O Decaying
From West:	From East: F	rom North:	From South:		
EB Approach		BB Approach	NB Approach	TOTAL	
0	1 0 I	0	T 0	0	•
- 1000 March 1000 - 1000 March 10	1000 - 10	1005000000 <del>0</del>	and the second s		
Enter Project	t and Model Years	5			
_	Year				
Base	2015				
Opening Mid	2021 2022				
Design	2025				
Model (	2025				
model					
Enter Base a	nd Model Year A	ADTs for Vo	lume Compariso	n:	
			ars are calculated i		n)
From West:		rom North:	From South:		
EB Approach		B Approach	NB Approach	TOTAL	•
2015 14500	12500	700	2200	29900	
2025 <b>17100</b>	15000	1000	3200	36300	

		1st Guess urning %'s for ADT Balancing	Actual/Counter Traffic for 2015	d	First Guess Turning % Option Use Existing Turning Movement Count
(EB LT) (EB THRU) (EB RT)	West-to-North West-to-East West-to-South	2.9% 93.2% 3.9%	22 698 29	Existing Year AADTs	Only the existing year total departure volumes [AADT*K*(1-D)] will be used to calculate the
(WB LT) (WB THRU)	East-to-South East-to-West	2.6% 96.6%	10 379		turning percentages first guess.
(WB RT)	East-to-North  North-to-East	0.8%	29	Existing Turning Movement	The turning percentages first guess is the same as the <u>actual</u>
(SB LT) (SB THRU) (SB RT)	North-to-South North-to-West	11.5% 47.1%	8 33	Counts	<u>distribution of turning volumes</u> <u>entered</u> . No balancing technique is used.
(NB LT)	South-to-West	50.5%	92	, ,	
(NB THRU) (NB RT)	South-to-North South-to-East	5.0% 44.5%	9 81	FSUTMS Model Year AADTs	Only the FSUTMS model year departure volumes [AADT*K*(1-D)] will be used to calculate the
Desired Clos	ure:	0.50		·	turning percentages first guess.

(14000)(15000)D Factors 40.0% WB 60.0% EB 63.0% NB 37.0% SB D Factors 40.0% WB 60.0% EB 63.0% NB 37.0% SB 504 SR 514 SR 514 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2025 482 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2021 51 (3200) Corey Road AM No-Build Corey Road AIM No-Build 6.1% 459 (2800)**♦** 98 61.8% 27.8% Corey Road AM No-Build Corey Road AM No-Build 18.5% PROJECT TRAFFIC FOR SR 514 AT Corey Road AM No-Build 53.7% ▲ 16 43 40 752 4.6<u>%</u> **867** 86.<u>7%</u> 8.7% SR 514 86.2% 9.1% SR 514 2025 AADT 2025 DDHV 9.00% 9.00% 2021 AADT 2021 DDHV 9.00% 9.00% 923 XXXXX) XXXXX K ML = K SS = K SS = (16000) (17000)XXX (13000)(14000)D Factors 40.0% WB 60.0% EB 63.0% NB 37.0% SB 40.0% WB 60.0% EB 63.0% NB 37.0% SB 513 450 490 95.4% 97.0% 0.5% SR 514 SR 514 0.8% 3.8% DESIGN HOUR TURNING MOVEMENTS IN YEAR 2015 437 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2022 53 33 26.0% Corey Road AM No-Build Corey Road AIN No-Build 10 6.3% **164** (2200)(2900)1 23.3% 19.0% 27.9% 87 69.3% 101 Corey Road AIM No-Build Corey Road AM No-Build 23 53.1% 62.3% 41 34 762 4.4% 783 87.5% 8.1% 4.7% **881** 86.5% 8.8% SR 514 2015 AADT 2015 DDHV 9.00% 9.00% SR 514 2022 AADT 2022 DDHV 9.00% 9.00% XXXXX) XXXXX K-MRC = K-SS = X SS = (XXXXX) (16000)(15000)8

K-10

			Is this a 4 way intersed	ction?	_
Analys Date Highway Intersectior Project County Is the Mainlin Oriented North/South	2: 11-Mar-15  7: SR 51- 10: Corey Road PM  11: SR514 DTTM  7: Enter Yes or No  Prevar  Prevar	I No-Build Update	Yes, my intersection If not, which 3 approach intersection?  EB, WB,  EB, WB,  EB, SB,  WB, SB,  WB, SB,	nes exist in the and SB and NB and NB	
	9.00% Side street 9.00%	Westbound (WB) Eastbound (EB) Northbound (NB) Southbound (SB)	60.0% 40.0% Side street 37.0% 63.0%		
Do you have FTSUTMS Mo interpolate/6	odel Year traffic from whic extrapolate for project yea	=		res or No	
. Base Opening Mid Design	2015   Mainlin	Rate (1.0% = 0.01)  Side Street  0.00%  omparison: calculate other project  h: From South:	● Linea	nential ying t-Growth Function ur nential	
Base Opening Midd Design Model	t and Model Years Year  2015 2021 2022 2025 2025 and Model Year AADTs for (volumes for other project From East: From North	years are calculated t			
EB Approach 2015 14500 2025 17100	WB Approach SB Approach 12500 700 15000 1000	ach NB Approach	<b>TOTAL</b> 29900 36300		
(EB LT) (EB THRU) (EB RT) (WB LT) (WB THRU) (WB RT)	1st Gu Turning %'s AADT Balann West-to-North 3.8% West-to-East 84.8% West-to-South 11.4%  East-to-South 5.6% East-to-West 90.9% East-to-North 3.5%	s for Traffic cing for 2015 23 6 507 6 68	Existing Year AADTs		[(AADT*K*(1-D))] ulate the es first guess.

(SB LT) (SB THRU)

(SB RT)

(NB LT)

(NB RT)

(NB THRU)

Desired Closure:

North-to-East

North-to-South

North-to-West

South-to-West

South-to-North

South-to-East

16.1%

51.6%

56,2% 5,4%

0.50

16

is the same as the <u>actual</u> <u>distribution of turning volumes</u> <u>entered</u>. No balancing technique is used.

Only the FSUTMS model year departure volumes [AAD1\*K\*(1-D)] will be used to calculate the turning percentages first guess.

Existing Turning Movement

Counts

FSUTMS Model

Year AADTs

(14000) (15000)D Factors 60.0% WB 40.0% EB 37.0% NB 63.0% SB D Factors 60.0% WB 40.0% EB 37.0% NB 63.0% SB 116 756 93.1% 93.9% SR 514 1.3% SR 514 710 10 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2025 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2021 2.5% 23.8% (2800) Corey Road PM No-Build Corey Road PM No-Build 93 **▲** 69 73.7% 19.0% Corey Road PIM No-Build Corey Road PIM No-Build 16.7% 20 PROJECT TRAFFIC FOR SR 514 AT Corey Road PM No-Build 64.3% 61.6% 16 454 108 2.7% **578** 78.7% 18.6% SR 514 SR 514 2021 AADT 2021 DDHV 9.00% 9.00% 2025 AADT 2025 DDHV 9.00% 9.00% XXXXX) XXXXX K ML = K SS = XXXXX XXXX K ML = K SS = (16000)(17000)(14000) (13000)D Factors 60.0% WB 40.0% EB 37.0% NB 63.0% SB D Factors 60.0% WB 40.0% EB 37.0% NB 63.0% SB 675 770 93.8% 647 95.8% 0.9% SR 514 SR 514 4.9% DESIGN HOUR TURNING MOVEMENTS IN YEAR 2015 Corey Road PM No-Build
DESIGN HOUR TURNING MOVEMENTS IN YEAR 2022 13 23 24.1% Corey Road PIN No-Build 2.0% 3.6% (2200)(2900)15.0% 52 17.0% 19.2% 58 79.9% 73.3% Corey Road PM No-Build (700) Corey Road PIM No-Build 40 12.5% 63.8% 72.5% 16 **★** 4 ₽ 2.7% 588 78.5% 18.8% 2.7% **522** 79.5% 17.8% SR 514 SR 514 2015 AADT 2015 DDHV 9.00% 9.00% 2022 AADT 2022 DDHV 9.00% XXXXX) XXXXX K ML = K SS = K ML= K SS = (XXXXX) (15000) (16000)

K-12

				Is this a 4	way intersection?
Analyst	t:	-		Γ_	
Date	: 10-Mar-15			Yes, my	intersection has four approaches
Highway		SR 514		If not, whic intersection	h 3 approaches exist in the
Intersection	- Character of Control	Street AM N	o-Build		_
Project	: SR	514 DTTM Up	odate		EB, WB, and SB
County		Brevard			O EB, WB, and NB
County	Enter Yes or No			1	O EB, SB, and NB
is the Mainline	O Yes				WB, SB, and NB
Oriented North/South?	? (● No				
K Factors	. Marialia		D. F	44-5-6	
K Factors	Mainline 9,00%	l v	D Factors Vestbound (WB)	Mainli 40.0	
	Side street		Eastbound (EB)	40.0°	500, 500 Feb. (1990)
•	9.00%			Side st	- CONTRACTOR - CON
			orthbound (NB)	60.09	200000000000000000000000000000000000000
		S	outhbound (SB)	40.0	%
		***************************************		······································	
					Enter Yes or No
Do you have FTSUTMS Mo	del Year traffic	from which y	you would like to		<b>⊚</b> Yes
interpolate/e	xtrapolate for pi	oject years?	? (Y/N)		ON <sub>0</sub>
			If "Yes" go to cell C	47	If "No" go to cell C31
Enter Year a	nd Growth Rates	s from Base	Year:	r	танние стомат гипскоп
	Year	Rate	9 (1.0% = 0.01)		<ul><li>Linear</li></ul>
Base	2015	Mainline	Side Street	- 1	○ Exponential
Opening	2025	0.000/	0.000		O Decaying
Mid Design	2035 2045	0.00%	0.00%		Side Street Growth Function
Design	2010				<ul><li>Linear</li></ul>
Enter Base Y	ear AADTs for \	olume Com	parison:		Exponential
	(growth rates ar	e used to cal	culate other projec	ct years)	O Decaying
F 14//-	5 5t.	F	F O . #		
From West: EB Approach	From East: WB Approach	From North: SB Approach	From South: NB Approach	TOTA	1
	1 0	0 Approach	0	0	<b>L</b>
210100000000000000000000000000000000000		NO PROPERTY OF THE PROPERTY OF	Maria de la companya del companya de la companya de la companya del companya de la companya de l	_	
Enter Project	t and Model Yea	ıs			
•	Year	15			
Base	Year 2015	ıs			
•	Year	is			

Year				
Base	2015			
Opening	2021			
Mid	2022			
Design	2025			
Model	2025			

Enter Base and Model Year AADTs for Volume Comparison: (volumes for other project years are calculated by interpolation)

	From West:	From East:	From North:	From South:	
	EB Approach	WB Approach	SB Approach	NB Approach	TOTAL
2015	12500	13000	200	600	26300
2025	15000	15400	200	700	31300

		1st Guess Furning %'s for	Actual/Count Traffic	ted	First Guess Turning % Option Use Existing Turning Movement Count
(EB LT) (EB THRU) (EB RT)	West-to-North West-to-East West-to-South	0.6% 99.0% 0.4%	for 2015 5 790 3	Existing Year AADTs	Only the existing year total departure volumes [AADT*K*(1-D)] will be used to calculate the
(WB LT) (WB THRU) (WB RT)	East-to-South East-to-West East-to-North	0.9% 98.9% 0.2%	4 420 1	ſ )	turning percentages first guess.  The turning percentages first guess
(SB LT) (SB THRU) (SB RT)	North-to-East North-to-South North-to-West	33.3% . 0.0% 66.7%	3 0 6	Existing Turning Movement Counts	g Turning is the same as the <u>actual</u> ement <u>distribution of turning volumes</u>
(NB LT) (NB THRU) (NB RT)	South-to-West South-to-North South-to-East	7.7% 0.0% 92.3%	3 0 36	FSUTMS Model Year AADTs	Only the FSUTMS model year departure volumes [AADT*K*(1-D)] will be used to calculate the

(15000)(14000)D Factors 40.0% WB 60.0% EB 60.0% NB 40.0% SB D Factors 40.0% WB 60.0% EB 60.0% NB 40.0% SB 520 554 96.8% 96.8% 0.4% SR 514 SR 514 503 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2025 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2021 Marie Street AM No-Build 33 92.5% (660) Marie Street AM No-Build (700) Marie Street AM No-Build 0.0% 0.0% 34.0% 1.6% 7.5% Marie Street AM No-Build (200)PROJECT TRAFFIC FOR SR 514 AT Marie Street AM No-Build %0.99 1.2% **756** 97.<u>6%</u> 1.1% 870 97.7% 1.2% SR 514 SR 514 2021 AADT 2021 DDHV 9.00% 9.00% 2025 AADT 2025 DDHV 9.00% 9.00% XXXXX XXXXX K ML = K SS = K ML = K SS = (14000)(XXXXX (15000)XXX (15000) (13000)D Factors 40.0% WB 60.0% EB 60.0% NB 40.0% SB D Factors 40.0% WB 60.0% EB 60.0% NB 40.0% SB 468 528 0.4% 96.8% %2'96 0.4% SR 514 SR 514 452 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2015

Marie Street AM No-Build
(200) DESIGN HOUR TURNING MOVEMENTS IN YEAR 2022 Marie Street AM No-Build 0.0% 30 0.0% 92.6% 33 92.5% (600) Marie Street AM No-Build Marie Street AM No-Build 7.4% 7.5% 0.0% 34.3% 0.0% 33.9% 66.1% 65.7% 657 752 1.3% 675 97.4% 1.3% 1.2% 770 97.6% 1.2% SR 514 SR 514 2022 AADT 2022 DDHV 9.00% 2015 AADT 2015 DDHV 9.00% XXXXX XXXX K ML = K SS = XXXX K ML = K SS = (13000)(14000)

K-14

	TONNOS ANAL	TOIS STILLT	<u> </u>	
			Is this a 4 way intersection?	
Analyst:			No.	
Date:	11-Mar-15		Yes, my intersection has four approach	ies
Highway:			If not, which 3 approaches exist in the intersection?	
Intersection:	Marie Street PM	No-Build	◯ EB, WB, and SB	
Project:	SR514 DTTM	Update	O EB, WB, and NB	
County:	Brevaro		O EB, SB, and NB	
•	Enter Yes or No	1	O WB, SB, and NB	
Is the Mainline	<b>○</b> Yes			
Oriented North/South?	No     No			
K Factors	Mainline	D Factors	Mainline	
N I actors	9.00%	Westbound (WB)	60.0%	
	Side street	Eastbound (EB)	40.0%	
	9.00%		Side street	
		Northbound (NB)	40.0%	
		Southbound (SB)	60.0%	
lo you have FTSUTMS Mod interpolate/ex	del Year traffic from whic ttrapolate for project year	•	Enter Yes or No  Yes No  If "No" go to cell to	C31
			. Plainine Growth Poliction	
Enter Year an	d Growth Rates from Bas		´ г	$\neg$
0		Pate (1.0% = 0.01)	Linear	
Base Opening	2015 Mainline 2025	e Side Street	O Exponential	
Mid	2035 0,00%	0.00%	O Decaying Side Street Growth Function	
Design	2045		Г	$\neg$
			● Linear	
Enter Base Yo	ear AADTs for Volume Co	•	(C) Exponential	
	(growth rates are used to	caiculate other project	years) Oecaying	
From West:	From East: From North	: From South:		
EB Approach	WB Approach SB Approa		TOTAL	
0	0 0	0	0	
Enter Project	and Model Years			
2,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Year			
Base	2015			
Opening Mid	2021			

 Design
 2025

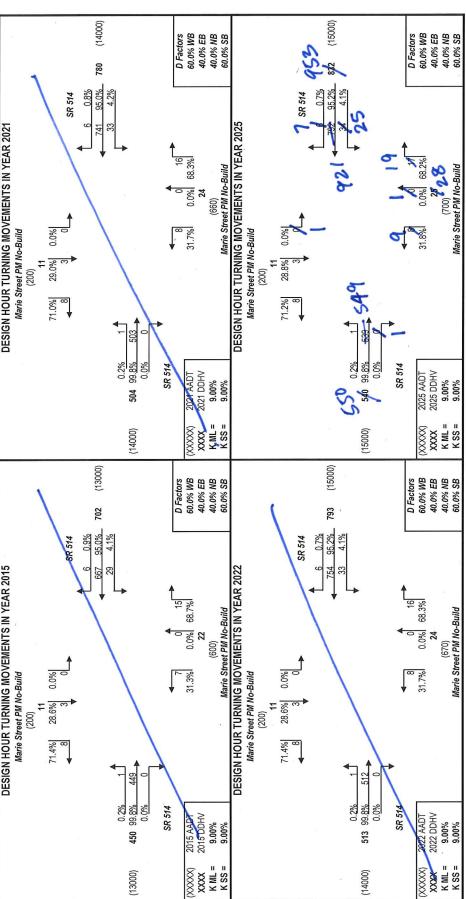
 Model
 2025

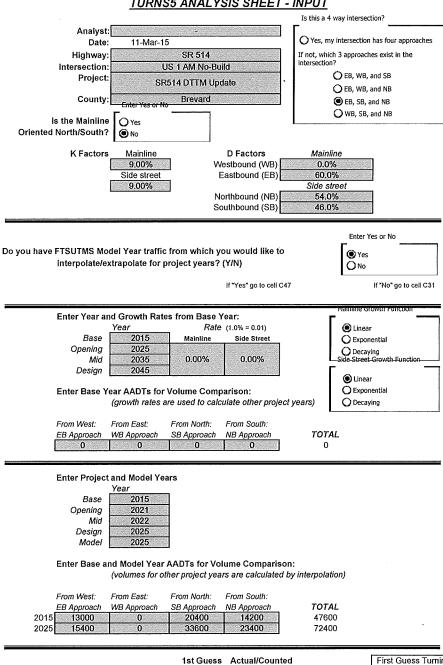
Enter Base and Model Year AADTs for Volume Comparison: (volumes for other project years are calculated by interpolation)

		From East:		From South:	
	EB Approach	WB Approach	SB Approach	NB Approach	TOTAL
2015	12500	13000	200	600	26300
2025	15000	15400	200	700	31300

First Guess Turning % Option Used 1st Guess Actual/Counted Turning %'s for Traffic Existing Turning Movement Counts AADT Balancing for 2015 (EB LT) West-to-North 0.2% Only the existing year total Existing Year (EB THRU) West-to-East 99.8% 533 departure volumes [AADT\*K\*(1-D)] AADTs (EB RT) West-to-South 0.0% 0 will be used to calculate the turning percentages first guess. (WB LT) East-to-South (WB THRU) East-to-West 96.7% 910 (WB RT) East-to-North 0.7% The turning percentages first guess Existing Turning is the same as the <u>actual</u> (SB LT) North-to-East 0.0% Movement distribution of turning volumes Counts (SB THRU) North-to-South 20,0% entered. No balancing technique is (SB RT) North-to-West 80.0% (NB LT) South-to-West Only the FSUTMS model year departure volumes [AADT\*K\*(1-(NB THRU) South-to-North 0.0% FSUTMS Model 0 South-to-East 19 Year AADTs (NB RT) 67.9% D)] will be used to calculate the turning percentages first guess. Desired Closure: 0.50

95.0% 0.8% SR 514 741 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2021 Marie Street PM No-Build %0.0 29.0% (200)PROJECT TRAFFIC FOR SR 514 AT Marie Street PM No-Build 71.0% (13000)702 95.0% 0.9% DESIGN HOUR TURNING MOVEMENTS IN YEAR 2015
Marie Street PM No-Build
(200) 299 0.0% 28.6% 71.4%





	1st Guess Actual/Coun Turning %'s for Traffic	nted	First Guess Turning % Option Used Existing Turning Movement Counts
(EB LT) West-to-Not (EB THRU) West-to-East (EB RT) West-to-Sot	t 0.0% 0	Existing Year AADTs	Only the existing year total departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.
(WB LT) East-to-Sou (WB THRU) East-to-Wes (WB RT) East-to-Non (SB LT) North-to-Ea	t 0.0% 0 h 0.0% 0	Existing Turning Movement	The turning percentages first guess is the same as the <u>actual</u> distribution of turning volumes
(SB THRU) North-to-So (SB RT) North-to-We (NB LT) South-to-We	ath 63.2% 355 36.8% 207	Counts	entered. No balancing technique is used.
(NB THRU) South-to-No (NB RT) South-to-Ea	rth 75.3% 633	FSUTMS Model Year AADTs	Only the FSUTMS model year departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

0 0 60.0% EB 54.0% NB 46.0% SB 60.0% EB 54.0% NB 46.0% SB D Factors D Factors SR 514 SR 514 (20000) US1AM No-Build DESIGN HOUR TURNING MOVEMENTS IN YEAR 2025 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2021 0.0% (23000) US 1 AM No-Build 84.9% 958 1391 66.6% 0.0% 926 0] 145 15.1% 0.0% **US 1 AM No-Build** (28000) US 1 AM No-Build 1172 64.4% 755 35.6% 33.4% PROJECT TRAFFIC FOR SR 514 AT US 1 AM No-Build 650 83.3% **780** 0.0% 16.7% SR 514 SR 514 2021 AADT 2021 DDHV 9.00% 2025 AADT 2025 DDHV 9.00% 9.00% XXXX K ML = K SS = K ML = K SS = (14000)(XXXXX) 0 0 60.0% EB 54.0% NB 46.0% SB 60.0% EB 54.0% NB 46.0% SB D Factors D Factors %0'0 %0.0 0.0% SR 514 SR 514 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2015 (14000)
US 1 AM No-Build
DESIGN HOUR TURNING MOVEMENTS IN YEAR 2022 0.0% 0.0% (21000) US 1 AM No-Build 522 75.7% 862 85.9% **1003** 069 168 24.3% 14.1% 0.0% 0.0% US 1 AM No-Build (20000) US 1 AM No-Build 65.1% 845 58.8% 497 1227 34.9% 41.2% €66 546 ▶ 127 77.8% **702** 0.0% 22.2% 84.0% 0.0% 16.0% SR 514 SR 514 2015 AADT 2015 DDHV 9.00% 9.00% 2022 AADT 2022 DDHV 9.00% 9.00% 793 XXXX K ML = XXXX K ML = K SS = K SS = (13000) (15000)

K-18

			<del></del>	<i></i> <del></del>	
				_ Is this a 4 w	ay intersection?
Analyst		3 au +		I	
Date	11-Mar-15	5		O Yes, my ii	ntersection has four approaches
Highway	CV244/04/04/01/CV2446/04/04/04/04/04/04/04/04/04/04/04/04/04/	SR 514			3 approaches exist in the
Intersection	100000000000000000000000000000000000000	S 1 PM No-Bu	ild	intersection?	\
Project	SR	514 DTTM Up	date	-	EB, WB, and SB
<b>a</b> •				1 -	EB, WB, and NB
County	Enter Yes or No	Brevard			EB, SB, and NB
Is the Mainline	ΓOγ	-			WB, SB, and NB
Oriented North/South?	10,0				
Chanted Horanovatii:	<b>⊙</b> No				
K Factors	Mainline		D Factors	Mainline	•
	9.00%	v	estbound (WB)	0.0%	
	Side street	<u> </u>	Eastbound (EB)	40.0%	Strength and and an advance of
	9.00%			Side stre	
			orthbound (NB)	46.0%	Output 11 Control Cont
		S	outhbound (SB)	54.0%	
					Enter Yes or No
o you have FTSUTMS Mo	del Year traffic	from which v	ou would like to		<b>(</b> Yes
•	xtrapolate for p	-			O <sub>No</sub>
,			, ,		<b>O</b> 110
			If "Yes" go to cell Ca	<b>1</b> 7	If "No" go to cell C31
Enton V	nd Growth Rate	a from Done :	Vaar		namme Grower Function
Enter Year ai	id Growth Rate Year		rear: e (1.0% = 0.01)	Γ	Linear
Base	2015	Mainline	Side Street		O Exponential
Opening	2025	Wallillie	Jide Otteet		= '
Mid	2035	0.00%	0.00%	L,	O Decaying Side Street Growth Function
Design	2045			Г	
·				į	♠ Linear
Enter Base Y	ear AADTs for				Exponential
	(growth rates a	re used to cald	culate other projec	t years)	O Decaying
- w	e e		~	B	
From West:	From East:	From North:	From South:	TOTAL	
EB Approach  0	WB Approach  0	SB Approach	NB Approach  0	TOTAL 0	
U	U	U.	U	0	
Enter Project	and Model Yea	ars			
	Year	_			
Base	2015				
Opening	2021				
Mid	2022				
Design	2025				

# Model 2025

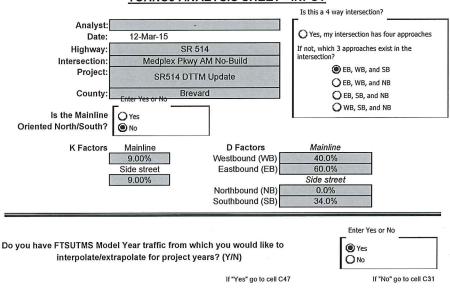
Enter Base and Model Year AADTs for Volume Comparison: (volumes for other project years are calculated by interpolation)

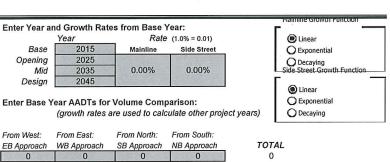
	From West:	From East:	From North:	From South:	
	EB Approach	WB Approach	SB Approach	NB Approach	TOTAL
2015	13000	0	20400	14200	47600
2025	15400	0	33600	23400	72400

		1st Guess urning %'s for ADT Balancing	Actual/Counte Traffic for 2015	d	First Guess Turning % Option Use Existing Turning Movement Coun
(EB LT) (EB THRU) (EB RT)	West-to-North West-to-East West-to-South	60.0% 0.0% 40.0%	278 0 185	Existing Year AADTs	Only the existing year total departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.
(WB LT) (WB THRU) (WB RT)	East-to-South East-to-West East-to-North	0.0% 0.0% 0.0%	0 0 0	[Futuring Tourism	The turning percentages first guess
(SB LT) (SB THRU) (SB RT)	North-to-East North-to-South North-to-West	0.0% 50.3% 49.7%	0 655 648	Existing Turning Movement Counts	is the same as the <u>actual</u> <u>distribution of turning volumes</u> <u>entered</u> . No balancing technique is used.
(NB LT) (NB THRU) (NB RT)	South-to-West South-to-North South-to-East	37.1% 62.9% 0.0%	327 555 0	FSUTMS Model Year AADTs	Only the FSUTMS model year departure volumes [AAD7*K*[1-D]] will be used to calculate the turning percentages first guess.

0 40.0% EB 46.0% NB 54.0% SB 0 40.0% EB 46.0% NB 54.0% SB D Factors D Factors SR 514 SR 514 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2025 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2021 20.3% 79.7% 0.0% 20.3% (23000) US 1 PM NO-Build US 1 PM No-Build 614 75.3% **816** (20000)202 0.0% US 1 PIM No-Build (28000) US 1 PM No-Build **1376** 57.7% 794 42.3% **4**582 PROJECT TRAFFIC FOR SR 514 AT US 1 PM No-Build 347 ♣ 66.7% 0.0% 33.3% 0.0% 31.9% 68.1% SR 514 2021 AADT 2021 DDHV 9.00% 9.00% 2025 AADT 2025 DDHV 9.00% 9.00% 520 554 XXXXX XXXXX K ML = K SS = XXXX K ML = K SS = (14000)(15000)0 0 40.0% EB 46.0% NB 54.0% SB 40.0% EB 46.0% NB 54.0% SB D Factors D Factors SR 514 0.0% SR 514 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2015 US 1 PM No-Build (20000) (14000) US 1 PM No-Build DESIGN HOUR TURNING MOVEMENTS IN YEAR 2022 0.0% US 1 PM No-Build 406 69.0% **588** 649 76.0% **854** (21000) 0.0% 0.0% 182 31.0% 205 24.0% US 1 PM No-Build 1441 58.6% 844 99.1 50.8% 41.4% 49.2% 353 ₽ 65.9% **468** 0.0% 34.1% SR 514 66.8% 0.0% 33.2% 2022 AADT 2022 DDHV 2015 AADT 2015 DBHV %00.6 %00% 528 XXXX XXXX K ML = K SS = K ML = K SS = (XXXXX) (13000)(15000)

K-20





2045 NB

# **Enter Project and Model Years**

From East:

WB Approach

Base

Mid

Opening

Design

From West:

EB Approach

Enter Year and Growth Rates from Base Year:

2015

2025

2035

Υ	ear
Base	2015
Opening	2025
Mid	2035
Design	2045
Model	2045

Enter Base and Model Year AADTs for Volume Comparison:

0.00%

From North:

SB Approach

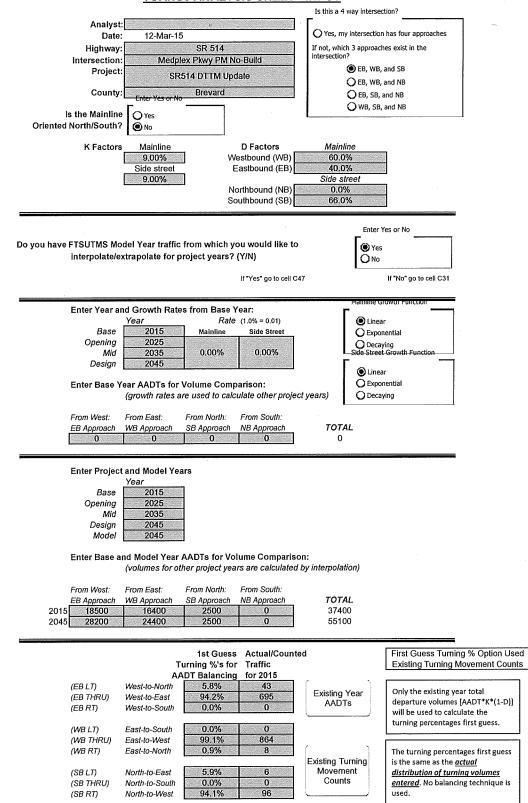
(volumes for other project years are calculated by interpolation)

	From West:	From East:	From North:	From South:	
	EB Approach	WB Approach	SB Approach	NB Approach	TOTAL
2015	18500	16400	2500	0	37400
2045	28200	24400	2500	0	55100

		1st Guess urning %'s for ADT Balancing	Actual/Cour Traffic for 2015	nted	First Guess Turning % Option Used Existing Turning Movement Counts
(EB LT) (EB THRU) (EB RT)	West-to-North West-to-East West-to-South	11.1% 88.9% 0.0%	98 787 0	Existing Year AADTs	Only the existing year total departure volumes [AADT*K*(1-D)] will be used to calculate the
(WB LT) (WB THRU)	East-to-South East-to-West	0.0% 98.4%	0 635	]	turning percentages first guess.
(WB RT)	East-to-North	1.6%	10	Existing Turning	The turning percentages first guess is the same as the <u>actual</u>
(SB LT) (SB THRU) (SB RT)	North-to-East North-to-South North-to-West	7.0% 0.0% 93.0%	3 0 40	Movement Counts	distribution of turning volumes entered. No balancing technique is used.
(NB LT) (NB THRU) (NB RT)	South-to-West South-to-North South-to-East	0.0% 0.0% 0.0%	0 0 0	FSUTMS Model Year AADTs	Only the FSUTMS model year departure volumes [AADT*K*(1-D)] will be used to calculate the
Desired Clos	sure:	2.00			turning percentages first guess.

(24000)(19000)D Factors 40.0% WB 60.0% EB D Factors 40.0% WB 60.0% EB 34.0% SB 34.0% SB 989 675 98.4% 1.6% SR 514 SR 514 -Medplex Pkwy AM No-Build DESIGN HOUR TURNING MOVEMENTS IN YEAR 2045 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2025 Medplex Pkwy AM No-Build 0.0% **Medplex Pkwy AM No-Build** 0.0% Medplex Pkwy AM No-Build 0.0% 0.0% %9.9 0.0 (2500)PROJECT TRAFFIC FOR SR 514 AT Medplex Pkwy AM No-Build 93.7% 93.4% 139 11.8<u>%</u> 1174 88.2<u>%</u> 0.0% 9.5% 1523 90.5% SR 514 SR 514 2025 AADT 2025 DDHV 9.00% 9.00% 2045 AADT 2045 DDHV 9.00% K ML = K SS = (22000)(X) X K SS = (28000)(XXXXX) (22000)(16000) D Factors 40.0% WB 60.0% EB D Factors 40.0% WB 60.0% EB 34.0% SB 34.0% SB 590 782 %9'86 579 98.1% 1.9% SR 514 SR 514 Medplex Pkwy AM No-Build DESIGN HOUR TURNING MOVEMENTS IN YEAR 2035 Medplex Pkwy AM No-Build DESIGN HOUR TURNING MOVEMENTS IN YEAR 2015 0.0% Medplex Pkwy AM No-Build 6.8% Medplex Pkwy AM No-Build (2500) 0.0% 6.4% 0.0% %0.0 0.0% 93.6% 93.2% 142 135 B64 B 1206 10.5% 1348 89.5% 0.0% 13.5% **999** 86.5% SR 514 2015 AADT 2015 DDHV 9.00% 9.00% 2035 AADT 2035 DDHV 9.00% XXXXX XXXXX K MIL = K SS = XXXXX XXXXX K Mr = K SS = (25000)(19000)

K-22



(NB LT)

(NB RT)

(NB THRU)

Desired Closure:

South-to-West

South-to-North

South-to-East

0.0%

0.0%

0.0%

2.00

0

**FSUTMS Model** 

Year AADTs

Only the FSUTMS model year

departure volumes [AADT\*K\*(1-

D)] will be used to calculate the turning percentages first guess.

(24000) (19000)D Factors 60.0% WB 40.0% EB D Factors 60.0% WB 40.0% EB 66.0% SB 66.0% SB 99.1% **1318** 0.0% 1030 98.7% 1.3% SR 514 SR 514 13 1017 Medplex Pkwy PM No-Build
DESIGN HOUR TURNING MOVEMENTS IN YEAR 2045
Medplex Pkwy PM No-Build DESIGN HOUR TURNING MOVEMENTS IN YEAR 2025 Medplex Pkwy PM No-Build (2500) Medplex Pkwy PM No-Build 0.0% 5.4% 0.0% 0.0% 0.0% PROJECT TRAFFIC FOR SR 514 AT Medplex Pkwy PM No-Build 94.6% 67 715 8.6% **782** 91.4% 0.0% 6.9% 1015 93.1% SR 514 SR 514 2025 AADT 2025 DDHV 9.00% 9.00% 2045 AADT 2045 DDHV 9.00% (22000)(XXXXX (28000)K ML (22000) (16000)D Factors 60.0% WB 40.0% EB D Factors 60.0% WB 40.0% EB 66.0% SB 66.0% SB 1161 98.9% 1174 0 886 98.5% 1.5% SR 514 13 873 Medplex Pkwy PM No-Build
DESIGN HOUR TURNING MOVEMENTS IN YEAR 2035
Medplex Pkwy PM No-Build DESIGN HOUR TURNING MOVEMENTS IN YEAR 2015 0.0% 0.0% Medplex Pkwy PM No-Build Medplex Pkwy PM No-Build (2500) 0.0% 0.0% 0.0% 94.8% 009 € 69 ₹ 99 830 9.9% **666** 90.1% 0.0% 7.7% **899** 92.3% 0.0% SR 514 SR 514 2015 AADT 2015 DDHV 9.00% 2035 AADT 2035 DDHV 9.00% K ML K SS = XXXXX XXXXX K MK = K SS = (19000)(XXXXX) **XX** (25000)

K-24

		Is this a 4 way intersect	ion?
Analyst: Date: 12-Mar-15	_	O Yes, my intersection	has four approaches
	R 514	If not, which 3 approach	
Intersection: Weber Roa	ad AM No-Build	intersection?  (C) EB, WB, a	and SB
SR914 L	OTTM Update	<b>⊚</b> EB, WB, a	
County: Enter Yes or No	revard	○ EB, SB, a	l l
Is the Mainline Yes	· ·	○ WB, SB, a	and NB
Oriented North/South?		•	
K Factors Mainline	D Factors Westbound (WB)	Mainline 40.0%	1 .
Side street	Eastbound (EB)	60.0%	
9,00%	Northbound (NB)	Side street 61.0%	]
	Southbound (SB)	0.0%	
Do you have FTSUTMS Model Year traffic from	which you would like to	Γ	es or No
interpolate/extrapolate for projec		● Yes ○ No	
	If "Yes" go to cell C4	<b>L</b> —7	If "No" go to cell C31
	11 103 go to con 04		11 110 go to toll 551
Enter Year and Growth Rates fro	m Base Year:	riamine Gr	owen runction
Year Base 2015	Rate (1.0% = 0.01)  Mainline Side Street	Linear	
Opening 2025		O Expone	ing
Mid 2035  Design 2045	0.00%	LSide Street	Growth Function
	ma Composinon	<ul><li>● Linear</li><li>○ Expon</li></ul>	
Enter Base Year AADTs for Volui (growth rates are us	ne Companson: ed to calculate other project	I = '	
From West: From East: From	n North: From South:		. <u>.                                   </u>
EB Approach WB Approach SB A	pproach NB Approach	TOTAL 0	
0 0	0 0	U	
Enter Project and Model Years			
Year			
Base 2015 Opening 2025			
Mid         2035           Design         2045			
Model 2045			
Enter Base and Model Year AAD	s for Volume Compariso	n:	
	roject years are calculated l		
From West: From East: From	North: From South:		
EB Approach WB Approach SB A 2015 16400 14500	Approach NB Approach 0 2400	<i>TOTAL</i> 33300	
2045 24400 21600	0 7500 f	53500	
	st Guess Actual/Counte g %'s for Traffic	d	First Guess Turning % Option Used Existing Turning Movement Counts
AA <u>DT E</u>	Balancing for 2015		
	0.0% 0 91,8% 693	Existing Year	Only the existing year total
	8.2% 62	AADTs	departure volumes [AADT*K*(1-D)] will be used to calculate the
(WB LT) East-to-South	2.4% 13		turning percentages first guess.
	97.6% 530 0,0% 0	ر ۱	The turning percentages first guess
		Existing Turning	is the same as the <u>actual</u>
(SB LT) North-to-East (SB THRU) North-to-South	0.0% 0 0.0% 0	Movement Counts	<u>distribution of turning volumes</u> <u>entered</u> . No balancing technique is
	0.0% 0		used.

FSUTMS Model Year AADTs Only the FSUTMS model year departure volumes [AADT\*K\*(1-D)] will be used to calculate the turning percentages first guess.

(NB LT) (NB THRU) (NB RT)

Desired Closure:

84.3% 0.0%

15.7%

1.00

South-to-West

South-to-North South-to-East

(22000)(17000)D Factors 40.0% WB 60.0% EB 61.0% NB D Factors 40.0% WB 60.0% EB 61.0% NB 798 607 583 96.1% 69<del>8</del> 89.8% SR 514 0 0.0% SR 514 78 10.2% DESIGN HOUR TURNING MOVEMENTS IN YEAR 2045
Weber Road AIM No-Build DESIGN HOUR TURNING MOVEMENTS IN YEAR 2025 0 37 0.0% 16.5% 225 442-417 (7500) Weber Road AM No-Build (4100) Weber Road AM No-Build 0.0% 188 83.5% Weber Road AM No-Build 0.0% %0.0 PROJECT TRAFFIC FOR SR 514 AT Weber Road AM No-Build 0.0% 0.0% 127 0.0% 1030 87.<u>7%</u> 12.3% 0.0% 1378 84.6% 15.4% SR 514 SR 514 2045 AADT 2045 DDHV 9.00% 9.00% 2025 AADT 2025 DDHV 9.00% 9.00% XXXXX XXXX K ML = K SS = (19000)X M X SS = (XXXXX) (24000)(19000) (15000)D Factors 40.0% WB 60.0% EB 61.0% NB D Factors 40.0% WB 60.0% EB 61.0% NB 692 522 92.6% 509 97.5% 2.5% SR 514 SR 514 0.0% 641 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2015 Weber Road AM No-Build DESIGN HOUR TURNING MOVEMENTS IN YEAR 2035 Weber Road AM No-Build 0 79 0.0% 24.9% 318 (5800) 0.0% 15.5% 13.5% 13.2% Weber Road AM No-Build Weber Road AM No-Build (2400)%0.0 0.0% 112 84.5% 239 75.1% %0:0 %0:0 %0.0 1008 0.0% 886 91.5% 8.5% 0.0% SR 514 2035 AADT 2035 DDHV 9.00% 2015 AABT 2015 DDHV 9.00% XXXXX XXXXX K-MIL = K SS = (XXXXX (22000)(16000)K ML

K-26

			Is this a 4 way intersec	tion?	
Analysi			Γ		
Date			Yes, my intersection		
Highway	Compared to the Compared Description of the Compared Comp	YERTONIZAYA DISAGO BAGUURURURURURURURURURURURURURURURURURURU	If not, which 3 approach intersection?	es exist in the	
Intersection		No-Build	○ EB, WB,	and SB	
Project	SR514 DTTM	Update	● EB, WB,		
County	Brevard		_		
	Enter Yes or No		O EB, SB,		
Is the Mainlin	e O Yes		₩b, 3b,	and No	
Oriented North/South	P ● No				
K Factors	s Mainline	D Factors	Mainline		
T(Tuoto)	9.00%	Westbound (WB)	60.0%		
	Side street	Eastbound (EB)	40.0%		
	9.00%	t	Side street	=	
		Northbound (NB)	39.0%		
		Southbound (SB)	0.0%		
-					
			Enter \	es or No	
Do you have FTSUTMS Mo	odel Year traffic from whic	h you would like to	( Yes		
interpolate/e	xtrapolate for project year	s? (Y/N)	ONo		
			L		
		If "Yes" go to cell C4	7	If "No" go to cell C31	
Enter Year a	nd Growth Rates from Bas	se Year:	rannine G	OWUI FUNCTION	
	Year R	ate (1.0% = 0.01)	● Linea	r	
Base	2015 Mainline	Side Street	Expor	ential	
Opening	2025	0.000/	O Decay	ing	
Mid Design	2035 0.00% 2045	0,00%	r—side streei	Growth Function	
Design	2010		<ul><li>Linea</li></ul>	г	
Enter Base \	ear AADTs for Volume Co	mparison:	<b>○</b> Expo	nential	
	(growth rates are used to d	calculate other projec	t years) Oeca	ring	
			<u> </u>		
From West:	From East: From North		TOTAL		
EB Approach  0	WB Approach SB Approac	ch NB Approach  0	0		
			· ·		
	to a distance of the state of t				
Enter Projec	t and Model Years <i>Year</i>				
Base	2015				
Opening	2025				
Mid	2035	•			
Design	2045				
Model	2045				
Enter Base a	and Model Year AADTs for	Volume Compariso	n·		
Litter Dase a	(volumes for other project	•			
	,		, , ,		
From West:	From East: From North	: From South:			
EB Approach	WB Approach SB Approach		TOTAL		
2015 16400	14500 0 21600 0	2400 7500	33300		
2045 <b>24400</b>	21600   0	7500	53500		
			***************************************		
	1st Gu	ess Actual/Counte	d	First Guess Turning % Option Us	
	Turning %'s			Existing Turning Movement Cou	nts
(60.10)	AADT Balanc	ing for 2015 0	· 1		7
(EB LT)	West-to-North 0.0% West-to-East 75.7%	control on a productive production of the control o	Existing Year	Only the existing year total	
(EB THRU) (EB RT)	West-to-South 24,3%		AADTs	departure volumes [AADT*K*(1-D)]	]
(LD IVI)		The second secon	\	will be used to calculate the	
(WB LT)	East-to-South 4.3%	37		turning percentages first guess.	
(WB THRU)	East-to-West 95.7%				7
(WB RT)	East-to-North 0.0%	0		The turning percentages first guess	
(OD / T)	Madh to Foot		Existing Turning Movement	is the same as the <u>actual</u>	
(SB LT) (SB THRU)	North-to-East 0.0% North-to-South 0.0%	0	Counts	distribution of turning volumes entered. No balancing technique is	
(SB ITINU)	140/11/-10-00uill		1	=mercu. no belancing recinique is	- 1

FSUTMS Model Year AADTs

used.

Only the FSUTMS model year departure volumes [AADT\*K\*(1-D)] will be used to calculate the turning percentages first guess.

(NB LT) (NB THRU)

Desired Closure:

(SB RT)

(NB RT)

North-to-West

South-to-West

South-to-North South-to-East

0.0%

80,2% 0,0% 19,8%

1.00

0

85

0 21

(22000)(17000)D Factors 60.0% WB 40.0% EB 39.0% NB D Factors 60.0% WB 40.0% EB 39.0% NB 1166 911 95.5% %2'06 0.0% 4.5% SR 514 SR 514 870 Weber Road PM No-Build DESIGN HOUR TURNING MOVEMENTS IN YEAR 2045 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2025 Weber Road PM No-Build 0 30 0.0% 20.8% 0 78 0.0% 29.8%1 **263** (7500) Weber Road PM No-Build 144 (4100)0.0% %0.0 70.2% Weber Road PM No-Build 0.0% %0.0 0.0% 0.0% 0 165 0.0% **686** 75.<u>9%</u> 24.<u>1%</u> SR 514 SR 514 2045 AADT 2045 DDHV 9.00% 9.00% 2025 AADT 2025 DDHV 9.00% 9.00% XXXXX XXXX K ML = K SS = XXXX XXXX X MM SS = (24000)(19000)(15000)(19000)D Factors 60.0% WB 40.0% EB 39.0% NB D Factors 60.0% WB 40.0% EB 39.0% NB 1039 783 %0''26 0.0% SR 514 SR 514 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2015 260 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2035 696 50 24.6% 17 20.4% Weber Road PIM No-Build Weber Road PM No-Build 0.0% 0.0% (2400)67 79.6% %0.0 %0.0 154 75.4% Weber Road PM No-Build Weber Road PIM No-Build 0.0% %0.0 0.0% 0.0% 0.0% 0 782 72.2% 565 27.8% 217 103 • 0.0% 590 82.5% 17.5% SR 514 SR 514 2035-AADT 2035 DDHV 9.00% 9.00% 2015 AADT 2015 DDHV 9.00% XXXXX) XXXXX K Mr = K SS = XXXX) (16000)(22000)

PROJECT TRAFFIC FOR SR 514 AT Weber Road PM No-Build

K-28

			Is this a 4 way intersec	tion?	
Analyst: Date: Highway: Intersection: Project: County: Is the Mainline Oriented North/South?	12-Mar-15	M No-Build	● Yes, my intersection If not, which 3 approach intersection? □ EB, WB, □ EB, WB, □ EB, SB, 6 □ WB, SB,	es exist in the and SB and NB and NB	
K Factors	Mainline 9.00% Side street 9.00%	D Factors Westbound (WB) Eastbound (EB) Northbound (NB) Southbound (SB)	Mainline 40.0% 60.0% Side street 63.0% 37.0%		
Do you have FTSUTMS Moi interpolate/ex	del Year traffic from whi ktrapolate for project ye	-	<b>②</b> Yes ○ No	'es or No	
Base Opening Mid Design	d Growth Rates from B Year 2015 Mainli 2025 2035 2045  ear AADTs for Volume C	Rate (1.0% = 0.01) ine Side Street % 0.00%	● Linea ○ Expor ○ Decay	nential ving -Growth Function	
EB Approach 0	(growth rates are used to From East: From Noi WB Approach SB Appro 0 0 and Model Years	rth: From South:	t years) Oeca TOTAL 0	ring ·	
Base Opening Mid Design Model	Year 2015 2025 2035 2045 2045	,			
From West:	nd Model Year AADTs for (volumes for other project From East: From Noi WB Approach SB Appro 12500 700 1400	ot years are calculated of the control of the contr			
(EB LT) (EB THRU) (EB RT) (WB LT)	1st G   Turning %   AADT Balar   West-to-North   2.99   West-to-East   93.2   West-to-South   2.69   East-to-South   2.69   East-to-Sou	ncing for 2015 % 22 % 698 % 29	d  Existing Year AADTs	First Guess Turning M  Existing Turning M  Only the existing yea departure volumes [ will be used to calcul turning percentages	ovement Counts  or total  AADT*K*(1-D)] late the
(WB THRU) (WB RT) (SB LT) (SB THRU) (SB RT)	East-to-West 96.6 East-to-North 0.89  North-to-East North-to-South North-to-West 41.4  1.15	% 379 % 3 % 29 % 8	Existing Turning Movement Counts	The turning percenta is the same as the <u>ac</u> <u>distribution of turnin</u> <u>entered</u> . No balancin used.	tual ng volumes
(NB LT) (NB THRU) (NB RT)	South-to-West         50.5           South-to-North         5.09           44.5         44.5	% 9 % 81	FSUTMS Model Year AADTs	Only the FSUTMS medeparture volumes (D)] will be used to caturning percentages	AADT*K*(1- alculate the

Desired Closure:

0.50

(15000)(19000)D Factors 40.0% WB 60.0% EB 63.0% NB 37.0% SB D Factors 40.0% WB 60.0% EB 63.0% NB 37.0% SB 527 95.7% 0.8% SR 514 SR 514 505 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2045 Corey Road AM No-Build DESIGN HOUR TURNING MOVEMENTS IN YEAR 2025 52 30.7% Corey Road AIN No-Build Corey Road AM No-Build 10 6.0% **170** (3000)18.5% 26.6% 6 8 108 63.3% Corey Road AIII No-Build (1400)(930)PROJECT TRAFFIC FOR SR 514 AT Corey Road AM No-Build 46.8% 54.9% 42 82 4.6% **911** 86.4% 9.0% 5.<u>0%</u> 1166 85.<u>0%</u> 10.<u>0%</u> SR 514 2025 AADT 2025 DHV 9.00% SR 514 2045 AADT 2045 DDHV 9.00% 9.00% XXXX XXXX K ML = K SS = (XXXXX) (17000)(22000)(17000) (13000) D Factors 40.0% WB 60.0% EB 63.0% NB 37.0% SB D Factors 40.0% WB 60.0% EB 63.0% NB 37.0% SB 604 450 5 0.9% 572 94.6% F %0.76 SR 514 0.5% SR 514 437 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2015 Corey Road AM No-Build (700) Corey Road AM No-Build
DESIGN HOUR TURNING MOVEMENTS IN YEAR 2035
Corey Road AM No-Build 4.7% 26.0% 125 14 74 74 6.9% 34.2% Corey Road AM No-Build (2200)21.5% 28.8% 87 69.3% 127 58.9% 14.4% 23.3% 62.3% 49.7% 100 4 888 886 886 20 ₽ 63 4.4% 783 87.5% 8.1% 4.8% 1039 85.6% 9.6% SR 514 SR 514 2015 AADT 2015 DDHV 9.00% 2035 AADT 2035 DDHV 9.00% K MI SS = XXXX XXXX XXXX XXXX SS = SS (XXXX) (15000)(19000)

K-30

			Is this a 4 way intersed	tion?	_
Analyst Date			Yes, my intersection	has four approaches	
Highway	- ONE TO THE PROPERTY OF THE P	SERVICE SERVIC	If not, which 3 approach intersection?	nes exist in the	
Intersection Project			O EB, WB,	and SB	
County	SR514 DTTM		○ EB, WB,		
•	Enter Yes or No	٦	O EB, SB, a		
Is the Mainline Oriented North/South?					
K Factors	Mainline 9.00% Side street 9.00%	D Factors Westbound (WB) Eastbound (EB) Northbound (NB) Southbound (SB)	Mainline 60.0% 40.0% Side street 37.0% 63.0%		
			Enter \	es or No	
=	odel Year traffic from which	-	<b>(</b> ⊚ Yes		
interpolate/e	xtrapolate for project yea	urs? (Y/N)	O <sub>No</sub>		
		if "Yes" go to cell C4	17	If "No" go to cell C31	
Enter Year a	nd Growth Rates from Ba	se Year:	матте G	rower renction	
Base	Year / / / / / / / / / / / / / / / / / / /	Rate (1.0% = 0.01) ne Side Street	● Linea ○ Expor		
Opening Mid	2025 2035 0.00%	6 0.00%	O Decay		
Design	2045	0,0070	Linea	$\neg$	
Enter Base \	ear AADTs for Volume C (growth rates are used to		O Expor	nential	
From West: EB Approach 0	From East: From Nort WB Approach SB Approach 0 0		TOTAL 0		
Enter Projec	t and Model Years				
Base Opening Mid Design Model	Year  2015 2025 2035 2045 2045				
Enter Base a	nd Model Year AADTs fo (volumes for other project				
From West:	From East: From Nort	h: From South:			
EB Approach 2015 14500	WB Approach SB Approach 12500 700	ach NB Approach 2200	<i>TOTAL</i> 29900		
2045 21600	18900 1400		46500		
	1st Gu Turning %' AADT Balan	s for Traffic	ed	First Guess Tumir Existing Turning N	
(EB LT)	West-to-North 3.8%	23	Existing Year	Only the existing ye	ar total
(EB THRU) (EB RT)	West-to-East         84.89           West-to-South         11.49		AADTs	departure volumes will be used to calcu	[AADT*K*(1-D)]
(WB LT)	East-to-South 5.6%	50	\ <u></u>	turning percentages	
(WB ET) (WB THRU) (WB RT) (SB LT)	East-to-North 3.5%  North-to-East 32.3%	816 31	Existing Turning Movement	The turning percent is the same as the <u>a</u>	ctual
(SB THRU)	North-to-South 16.1% North-to-West 51.6%	6 5	Counts	<u>entered</u> . No balanci used.	
(SB RT)	THURST UTO			1 4244.	

FSUTMS Model Year AADTs Only the FSUTMS model year

departure volumes [AADT\*K\*(1-

D)] will be used to calculate the turning percentages first guess.

(NB LT) (NB THRU)

Desired Closure:

(NB RT)

South-to-West

South-to-North

South-to-East

56,2%

5.4% 38.4%

0,50

(15000)(19000)D Factors 60.0% WB 40.0% EB 37.0% NB 63.0% SB D Factors 60.0% WB 40.0% EB 37.0% NB 63.0% SB 921 790 742 93.9% 38 4.8% SR 514 1.3% SR 514 9 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2045 **DESIGN HOUR TURNING MOVEMENTS IN YEAR 2025** 182 4P 2.5% 23.3% (4600) Corey Road PM No-Build Corey Road PIM No-Build 100 (3000)18.6% 74.2% Corey Road PIM No-Build Corey Road PM No-Build 16.8% (1400) 64.6% 115 2.7% **607** 78.3% 19.0% 2.9% 778 76.0% 21.1% SR 514 SR 514 2025 AADT 2025 DDHV 9.00% 9.00% 2045 AADT 2045 DDHV 9.00% 9.00% XXXXX XXXXX K ML = K SS = (17000)XXXX XXXX XXXX XXXX XXXX (22000)(13000)(17000)D Factors 60.0% WB 40.0% EB 37.0% NB 63.0% SB D Factors 60.0% WB 40.0% EB 37.0% NB 63.0% SB 902 675 1.5% 0.9% SR 514 SR 514 647 14 838 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2015 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2035 2 13 2.0% 18.1% 73 33 25.9% Corey Road PIM No-Build Corey Road PIM No-Build (2200)19.4% 20.1% 13 13 58 79.9% 71.2% 15.0% Corey Road PM No-Build Corey Road PIM No-Build 40 12.5% 99 72.5% 29 60.5% 415 93 4 61 534 139 2.8% **692** 77.1% 20.1% 2.7% **522** 79.5% 17.8% SR 514 SR 514 2035 AADT 2035 DDHV 9.00% 9.00% 2015 AADT 2016 DDHV 9.00% (XXXXX) K ML (XXXXX) (15000)(19000)

PROJECT TRAFFIC FOR SR 514 AT Corey Road PM No-Build

K-32

			Is this a 4 way interse	ection?
Analyst Date	5-Mar-15		Yes, my intersection	**
Highway Intersection Project	: Marie Street AN	/ No-Build	If not, which 3 approace intersection?  © EB, WB	, and SB
County  Is the Mainline	Yes	d ]	O EB, SB, O WB, SB	and NB
Oriented North/South? K Factors	I	D Factors Westbound (WB) Eastbound (EB) Northbound (NB) Southbound (SB)	Mainline 40.0% 60.0% Side street 60.0% 40.0%	
	odel Year traffic from whic xtrapolate for project yea	rs? (Y/N)		
		if "Yes" go to cell C47		If "No" go to cell C31
Base Opening Mid Design	nd Growth Rates from Ba Year	Rate (1.0% = 0.01)  10 Side Street  6 0.00%	● Line: ○ Expc ○ Deca	onential lying ot Growth Function
From West: EB Approach	(growth rates are used to  From East: From Norte WB Approach SB Approach 0 0	calculate other project h: From South:	years) Obeca  TOTAL  0	lying
Enter Projec: Base Opening Mid Design Model	t and Model Years  Year  2015 2025 2035 2045 2045			
Enter Base a	nd Model Year AADTs for (volumes for other project	•		
From West: EB Approach 2015 12500 2045 18900	From East:         From North           WB Approach         SB Approach           13000         200           19300         200		<b>TOTAL</b> 26300 39200	
(EB LT) (EB THRU) (EB RT)	1st Gu	s for Traffic cing for 2015 5 5 6 790	Existing Year AADTs	First Guess Turning % Existing Turning Move  Only the existing year to departure volumes [AAD will be used to calculate turning percentages first
(WB LT) (WB THRU)	East-to-South 0.9% East-to-West 98.9%			

(WB RT)

(SB LT) (SB THRU) (SB RT)

(NB LT)

(NB RT)

(NB THRU)

ption Used ent Counts \*K\*(1-D)] ie uess. East-to-West 98.9% 420 East-to-North 0.2% The turning percentages first guess Existing Turning Movement Counts is the same as the  $\underline{\textit{actual}}$ <u>distribution of turning volumes</u> <u>entered</u>. No balancing technique is North-to-East 33.3% North-to-South 0.0% 0 North-to-West 66.7% used. 6 7.7% 0.0% South-to-West Only the FSUTMS model year FSUTMS Model Year AADTs South-to-North 0 departure volumes [AADT\*K\*(1-South-to-East 92,3% 36 D)] will be used to calculate the turning percentages first guess. Desired Closure: 0.50

(15000)(19000) D Factors 40.0% WB 60.0% EB 60.0% NB 40.0% SB D Factors 40.0% WB 60.0% EB 60.0% NB 40.0% SB 695 544 0.4% 97.2% SR 514 527 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2045 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2025
Marie Street AM No-Build
(200) 0.0% 92.5% 36 (670) Marie Street AM No-Build Marie Street AM No-Build 0.0% 34.0% 7.5% Marie Street AM No-Build (200)PROJECT TRAFFIC FOR SR 514 AT Marie Street AM No-Build %0.99 6 25 1.1<u>%</u> **790** 97.<u>7%</u> 0.9% 1021 98.0% 1.1% SR 514 SR 514 2045 AADT 2045 DDHV 9.00% 2025 AADT 2025 BDHV 9.00% XXXX XXXX K ML = K SS = XXXX K ML = K SS = (15000)(XXXXX (19000)(17000) (13000)D Factors 40.0% WB 60.0% EB 60.0% NB 40.0% SB D Factors 40.0% WB 60.0% EB 60.0% NB 40.0% SB 619 468 0.3% 97.1% %2'96 0.4% SR 514 2.6% SR 514 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2015
Marie Street AM No-Build
(200) 452 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2035 Marie Street AM No-Build 601 0 37 0.0% 92.4% **40** 0 30 0.0% 92.6% 32 Marie Street AM No-Build Marie Street AM No-Build (009) 0.0% 33.8% 2 0.0% 34.3% 7.4% 7.6% %2.59 66.2% 988 657 **◆** 6 1.3% 675 97.4% 1.3% 1.0% **905** 97.9% 1.1% SR 514 SR 514 2015 AADT 2015 DDHV 9.00% 2035 AADT 2035 DDHV 9.00% 9.00% XXXXX K ML = K SS = XXXX K ML = K SS = (13000)(17000)(XXXXX

K-34

	•		Is this a 4 way intersect	tion?
Analyst: Date: Highway: Intersection:	12-Mar-15 SR-514 Marie Street PM	SECURITY DOMESTIC SECURITY SEC	Yes, my intersection  If not, which 3 approach intersection?	
Project: County:	SR514 DTTM	Update	○ EB, WB, 3 ○ EB, WB, 3 ○ EB, SB, a	and NB and NB
Is the Mainline Oriented North/South?	○ Yes ● No		○ WB, SB,	and NB
K Factors	Mainline 9.00% Side street 9.00%	D Factors Westbound (WB) Eastbound (EB) Northbound (NB) Southbound (SB)	Mainline 60.0% 40.0% Side street 40.0% 60.0%	]
	del Year traffic from whic trapolate for project year		Enter Y  Yes  No	es or No
		If "Yes" go to cell C47		If "No" go to cell C31
Base Opening Mid Design	Add Growth Rates from Bas   Year   R	ate (1.0% = 0.01) Side Street 0.00%  omparison: calculate other project From South:	<ul><li>♠ Linea</li><li>♠ Expor</li></ul>	ential ing Growth Function
Enter Project  Base Opening Mid Design Model	and Model Years Year 2015 2025 2035 2045 2045			
Enter Base ai	nd Model Year AADTs for (volumes for other project			
From West: EB Approach 2015 12500 2045 18900	From East:         From North           WB Approach         SB Approach           13000         200           19300         200		TOTAL 26300 39200	
(EB LT)	1st Gu Turning %'s AADT Balanc West-to-North 0.2% West-to-Fast 99.8%	for Traffic sing for 2015	Existing Year	First Guess Turning % Existing Turning Mov

	1st Guess Actual/Count Turning %'s for Traffic ADT Balancing for 2015	ed	First Guess Turning % Option Used Existing Turning Movement Counts
(EB LT) West-to-North (EB THRU) West-to-East (EB RT) West-to-South	0.2%         1           99.8%         533           0.0%         0	Existing Year AADTs	Only the existing year total departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.
(WB LT)         East-to-South           (WB THRU)         East-to-West           (WB RT)         East-to-North           (SB LT)         North-to-East	2.6% 24 96.7% 910 0.7% 7	Existing Turning Movement Counts	The turning percentages first guess is the same as the <u>actual</u> <u>distribution of turning volumes</u>
(SB THRU) North-to-South (SB RT) North-to-West (NB LT) South-to-West (NB THRU) South-to-North	80.0% 4 32.1% 9	FSUTMS Model	entered. No balancing technique is used.  Only the FSUTMS model year
(NB RT) South-to-East  Desired Closure:	67.9% 19	Year AADTs	departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

(15000) (19000) D Factors 60.0% WB 40.0% EB 40.0% NB 60.0% SB D Factors 60.0% WB 40.0% EB 40.0% NB 60.0% SB 1042 815 0.6% 95.6% 95.3% SR 514 6 0.7% SR 514 922 (670)
Marie Street PM No-Build
DESIGN HOUR TURNING MOVEMENTS IN YEAR 2045 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2025 0.0% 68.4% 24 32.1% 0.0% 67.9% 800) 45 (800) Marie Street Pln No-Build 0.0% 32.1% 8 31.6% Marie Street PM No-Build Marie Street PM No-Build 28.2% £ (200) (200)PROJECT TRAFFIC FOR SR 514 AT Marie Street PM No-Build 3.78 71.8% 0.2% **527** 99.8% 0.2% **680** 99.8% 0.0% SR 514 SR 514 2025 AADT 2025 DDHV 9.00% 9.00% 2045 AADT 2045 DDHV 9.00% 9.00% XXXX K ML = K SS = XXXX XXXX K ML = K SS = (15000)(19000)(17000) (13000)D Factors 60.0% WB 40.0% EB 40.0% NB 60.0% SB D Factors 60.0% WB 40.0% EB 40.0% NB 60.0% SB 929 702 95.5% 3.9% 95.0% SR 514 SR 514 0.9% 299 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2015 Marie Street PIN No-Build
DESIGN HOUR TURNING MOVEMENTS IN YEAR 2035 887 0.0% 68.1% 0.0% 68.7% Marie Street PM No-Build 26 (009) (730)0.0% 31.3% 31.9% %0.0 Marie Street PM No-Build Marie Street PM No-Build 27.7% 28.6% (200)71.4% 72.3% 603 0.2% **604** 99.8% 0.0% 0.2% **450** 99.8% 0.0% SR 514 SR 514 2015 AADT 2015 DDHV 9.00% 9.00% 2035 AADT 2035 DDHV 9.00% XXXX XXXX K ML = K SS = K ML = K SS = (XXXXX) (13000)(17000)XXX

K-36

			Is this a 4 way intersec	ction?	
Analyst Date:			Yes, my intersection	n has four approaches	
Highway			If not, which 3 approach	hes exist in the	
Intersection		-Build	intersection?		
Project	SR514 DTTM	Update	O EB, WB,		
County			O EB, WB,		
County	Enter Yes or No		EB, SB,	3	
Is the Mainline	Oyes		O WB, SB,	and MB	
Oriented North/South?					
K Factors	Mainline	D Factors	Mainline		
K Factors	9.00%	Westbound (WB)	0.0%		
	Side street	Eastbound (EB)	60.0%		
	9.00%		Side street		
		Northbound (NB) Southbound (SB)	54.0% 46.0%		
		Southbound (SB)	40:076		
	·		F-1	Wan au Na	
			Enter	Yes or No	
Do you have FTSUTMS Mo			<b>⊚</b> Yes		
interpolatere	xtrapolate for project yea	rs ? (T/N)	ONo		
		if "Yes" go to cell C4	7	If "No" go to cell C31	
Entor Voor o	nd Growth Rates from Ba	o Voar	riamine G	rowal runction	
Litter real at		Rate (1.0% = 0.01)	Linea	ır	
Base	2015 Mainlin		O Expo	•	
Opening	2025		O Deca	ying	
Mid	2035 0.00% 2045	0.00%	L Side Stree	t Growth Function	
Design	2043		<ul><li>Linea</li></ul>	ar	
Enter Base Y	ear AADTs for Volume Co	omparison:	○ Expo	nential	
	(growth rates are used to	calculate other projec	t years) O Deca	ying	
From West:	From East: From Norti	n: From South:	•		
EB Approach	WB Approach SB Approa		TOTAL		
0	0 0	0	0		
		11907			
Enter Project	and Model Years				
•	Year				
Base	2015				
Opening Mid	2025				
Design	2045				
Model	2045				
<b>.</b>	144 1 1 V 4 4 5 7 C				
Enter Base a	nd Model Year AADTs for (volumes for other project	•			
	(Volumes for other project	years are carearated i	oy interpolation,		
From West:	From East: From North				
EB Approach	WB Approach SB Approa		TOTAL		
2015 13000 2045 19300	0 20400		47600 104700		
2010					
					-
	1st Gu Turning %'s		a	First Guess Turning % Option Used Existing Turning Movement Counts	
	AADT Baland				_
(EB LT)	West-to-North 74,0%	623	Evicting Voor	Only the existing year total	
(EB THRU)	West-to-East 0.0%		Existing Year AADTs	departure volumes [AADT*K*(1-D)]	
(EB RT)	West-to-South 26.0%	219		will be used to calculate the	
(WB LT)	East-to-South 0.0%	0		turning percentages first guess.	
(WB THRU)	East-to-West 0.0%	0			
(WB RT)	East-to-North 0,0%	0	[]	The turning percentages first guess	
(SB LT)	North-to-East 0.0%	0	Existing Turning Movement	is the same as the <u>actual</u> distribution of turning volumes	
(SB LT) (SB THRU)	North-to-South 63,2%		Counts	entered. No balancing technique is	
	A CANADA A CONTRACTOR A CONTRAC				

K-37

FSUTMS Model Year AADTs

used.

Only the FSUTMS model year departure volumes [AADT\*K\*(1-

D)] will be used to calculate the turning percentages first guess.

355 207

633 0

36.8%

75.3%

0.0%

0,50

North-to-West

South-to-West

South-to-North

South-to-East

(SB RT)

(NB LT)

(NB RT)

(NB THRU)

Desired Closure:

0 60.0% EB 54.0% NB 46.0% SB 0 60.0% EB 54.0% NB 46.0% SB D Factors D Factors SR 514 SR 514 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2025 US 1 AM No-Build DESIGN HOUR TURNING MOVEMENTS IN YEAR 2045 1288-7198 1288-7198 (37000) US 1 AM No-Build 884 0.0% 83.7% 0.0% **1056** (22000) US 1 AM No-Build -Buila 2012 | QOS 2017 | 72.5% | 0.0% | 1459 0.0% 172 16.3% US 1 AM No-Build (30000) 1234 66.3% 33.7% €58 157 80.7% 815 0.0% SR 514 19.3% SR 514 2025 AADT 2025 DDHV 9.00% 9.00% 2045 AADT 2045 DDHV 9.00% 9.00% XXXXX) XXXXX K ML = K SS = K ML = K SS = (15000)0 0 60.0% EB 54.0% NB 46.0% SB 60.0% EB 54.0% NB 46.0% SB D Factors D Factors %0.0 0.0% SR 514 SR 514 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2015 US 1 AM No-Build DESIGN HOUR TURNING MOVEMENTS IN YEAR 2035 0.0% 12.5% 1244 0. 12.5% 87.5% 0. 1422 (29000) US 1 AM No-Build 690 (14000) US 1 AIM No-Build 522 75.7% 4 168 24.3% 0.0% %0.0 178 12.5% US 1 AM No-Build 845 58.8% 497 **1623** 70.2% 1139 29.8% 41.2% \$46 , 292 156 77.8% **702** 0.0% 22.2% 82.6% 929 0.0% 17.4% SR 514 SR 514 2035 AADT 2035 DDHV 9.00% 9.00% 2015 AADT 2015 DDHV 9.00% XXXX XXXX K ML = K SS = XXXX K ML K SS = (13000)(17000)

PROJECT TRAFFIC FOR SR 514 AT US 1 AM No-Build

K-38

			is this a 4 way intersec	tion?	
Analyst Date Highway Intersection	12-Mar-15 SR 514	ATTACA MANAGETT SANGED ON THE CONTROL AND ADDRESS OF THE	O Yes, my intersection If not, which 3 approach intersection?		
Project			○ EB, WB,		
County	Enter Yes or No Brevard		EB, SB, a	and NB	
Is the Mainline Oriented North/South?	•		○ WB, SB,	and NB	J
K Factors	Mainline 9.00% Side street 9.00%	D Factors Westbound (WB) Eastbound (EB)  Northbound (NB) Southbound (SB)	Mainline 0.0% 40.0% Side street 46.0% 54.0%	]	
Do you have FTSUTMS Mo interpolate/e	del Year traffic from whic xtrapolate for project year	=	Yes O No	'es or No  If "No" go to cell C31	
Base Opening Mid Design	And Growth Rates from Bas Year R  2015 Mainline 2025 2035 2045  Mainline 2045  Mainline 2045	Cate (1.0% = 0.01)  e Side Street  0.00%	Linear C Export Decay	ential ing Growth Function T	
From West: EB Approach	(growth rates are used to defend the state of the state o	: From South:	years) Obecay  TOTAL  0	ring	
Base Opening Mid Design Model	t and Model Years Year  2015 2025 2035 2045 2045 2045  and Model Year AADTs for (volumes for other project)				
From West: EB Approach 2015 13000 2045 19300	From East: From North WB Approach SB Approach 0 20400 0 48600	ch NB Approach 14200	<b>TOTAL</b> 47600 104700		
(EB LT) (EB THRU) (EB RT)	Turning %'s   AADT Balanc   West-to-North   60.0%   West-to-East   West-to-South   40.0%	ing for 2015 278 0	Existing Year AADTs		[AADT*K*(1-D)]
(WB LT) (WB THRU) (WB RT)	East-to-South	0 0		turning percentage	s first guess.

(SB LT)

(SB RT)

(NB LT)

(NB RT)

(NB THRU)

Desired Closure:

(SB THRU)

North-to-East

North-to-South

North-to-West

South-to-West

South-to-North

South-to-East

50.3%

49.7%

37.1% 62.9%

0.0%

6.00

655

648

327 555

0

Only the FSUTMS model year FSUTMS Model Year AADTs

is the same as the <u>actual</u>

used.

distribution of turning volumes

entered. No balancing technique is

Existing Turning Movement

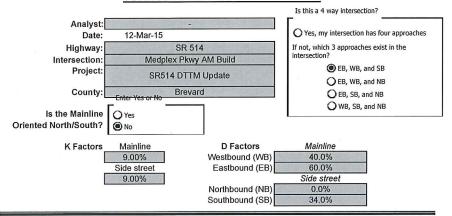
Counts

0 40.0% EB 46.0% NB 54.0% SB 0 40.0% EB 46.0% NB 54.0% SB D Factors D Factors SR 514 SR 514 1248 0 3724 1924 1924 (37000) US 1 Pin No-Build DESIGN HOUR TURNING MOVEMENTS IN YEAR 2025 US 1 PIN No-Build (30000) DESIGN HOUR TURNING MOVEMENTS IN YEAR 2045 US 1 PM No-Build 0.0% US 1 PM No-Build 677 75.2% **900** (22000)0.0% 223 24.8% 1448 59.4% 31.3% 40.6% **4**588 354 65.0% 35.0% 64.9% 0.0% 35.1% SR 514 2045 AADT 2045 DDHV 9.00% 9.00% 2025 AADT 2025 DDHV 9.00% 9.00% 544 695 XXXXX XXXX K ML = K SS = XXXX XXXX K ML = K SS = (15000)(19000)0 40.0% EB 46.0% NB 54.0% SB 40.0% EB 46.0% NB 54.0% SB D Factors D Factors SR 514 SR 514 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2015

US 1 PM No-Build
(20000)
991
49.2% 50.8% 0.0% 0.0% DESIGN HOUR TURNING MOVEMENTS IN YEAR 2035 0.0% (29000) **US 1 PM No-Build** US 1 PM No-Build 588 (14000) 406 951 78.5% **1212** 0.0% ▲ 182 31.0% 261 21.5% %0.0 US 1 PM No-Build 1905 64.2% 1223 35.8% 308 ▶ 399 ₽ 160 65.9% 0.0% 34.1% 64.5% 0.0% 35.5% SR 514 SR 514 2015 AADT 2015 DDHV 9.00% 9.00% 2035 AADT 2035 DDHV 9.00% 9.00% 468 619 XXXX XXXX K ML = K SS = XXXXX XXXXX K Mk K SS = (13000)(17000)

PROJECT TRAFFIC FOR SR 514 AT US 1 PM No-Build

K-40



[2025 BUILD]

Do you have FTSUTMS Model Year traffic from which you would like to interpolate/extrapolate for project years? (Y/N)

If "Yes" go to cell C47

Enter Yes or No

Yes

If "No" go to cell C31

Enter Year a	nd Growth Rat	es from Base \	ear:	rialliline Growth Punction
	Year	Rate	(1.0% = 0.01)	<ul><li>Linear</li></ul>
Base	2015	Mainline	Side Street	O Exponential
Opening	2025			O Decaying
Mid	2035	0.00%	0.00%	Side Street Growth Function
Design	2045			Г
		•		<ul><li>Linear</li></ul>
Enter Base	ear AADTs for	Volume Comp	arison:	○ Exponential
			ulate other projec	ct years) Oecaying
From West:	From East:	From North:	From South:	
	WB Approach	SB Approach	NB Approach	TOTAL
EB Approach	VVD Apploacii			

### **Enter Project and Model Years**

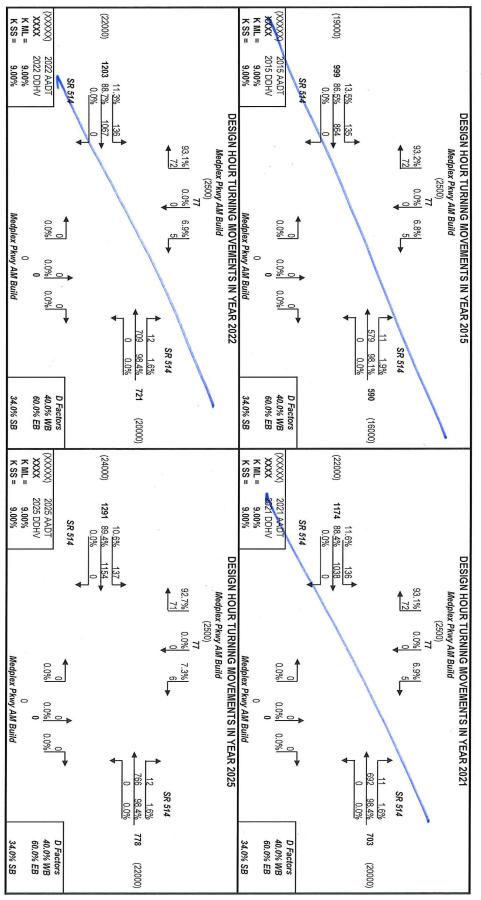
Y	'ear
Base	2015
Opening	2021
Mid	2022
Design	2025
Model	2025

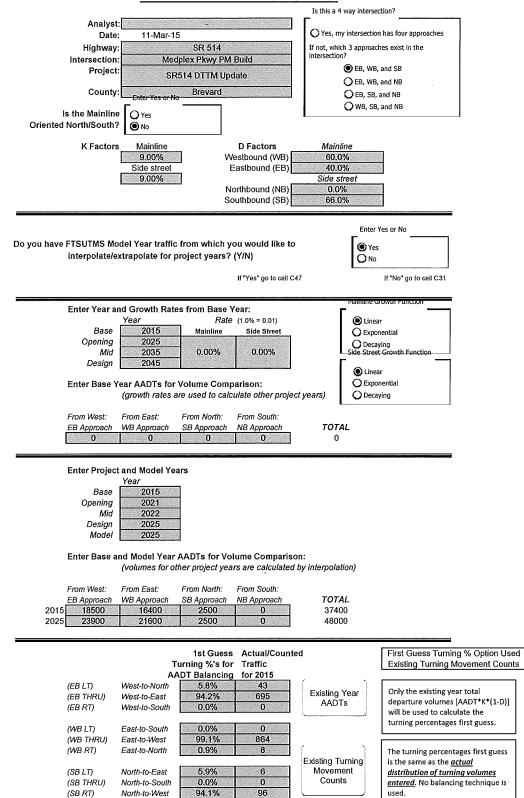
Enter Base and Model Year AADTs for Volume Comparison: (volumes for other project years are calculated by interpolation)

	From West:	From East:	From North:	From South:	
	EB Approach	WB Approach	SB Approach	NB Approach	TOTAL
2015	18500	16400	2500	0	37400
2025	23900	21600	2500	0	48000

1st Guess Actual/Counted First Guess Turning % Option Used Turning %'s for **Existing Turning Movement Counts** Traffic **AADT Balancing** for 2015 (EB LT) West-to-North 11.1% 98 Existing Year Only the existing year total (EB THRU) West-to-East 88.9% 787 departure volumes [AADT\*K\*(1-D)] **AADTs** (EB RT) West-to-South 0.0% 0 will be used to calculate the turning percentages first guess. 0.0% (WB LT) East-to-South (WB THRU) East-to-West 98.4% 635 (WB RT) East-to-North 1.6% 10 The turning percentages first guess **Existing Turning** is the same as the actual (SB LT) North-to-East Movement distribution of turning volumes Counts (SB THRU) North-to-South 0.0% 0 entered. No balancing technique is (SB RT) North-to-West 93.0% (NB LT) South-to-West 0.0% Only the FSUTMS model year FSUTMS Model (NB THRU) South-to-North 0.0% departure volumes [AADT\*K\*(1-(NB RT) South-to-East Year AADTs 0.0% D)] will be used to calculate the turning percentages first guess. Desired Closure: 1.50

# PROJECT TRAFFIC FOR SR 514 AT Medplex Pkwy AM Build





(NB LT)

(NB RT)

(NB THRU)

Desired Closure:

South-to-West

South-to-North

South-to-East

0.0%

0.0%

0.0%

1.50

0

FSUTMS Model

Year AADTs

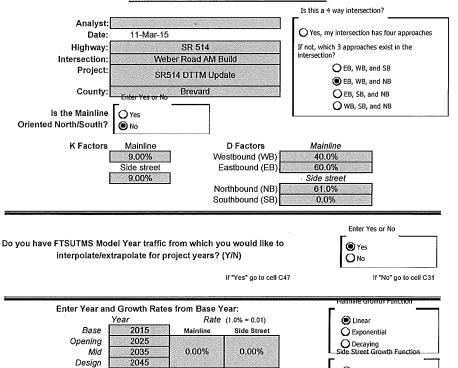
Only the FSUTMS model year

departure volumes [AADT\*K\*(1-

D)] will be used to calculate the turning percentages first guess.

(20000) (22000)D Factors 60.0% WB 40.0% EB D Factors 60.0% WB 40.0% EB 66.0% SB 66.0% SB 1054 1166 1.3% 98.7% 0.0% %6'86 SR 514 SR 514 13 1040 1153 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2025 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2021 Medplex Pkwy PM Build Medplex Pkwy PM Build Medplex Pkwy PM Build %0.0 5.6% 8 Medplex Pkwy PM Build (2500) 149 94.4% 0.0% 5.6% 0.0% 0.0% 0.0% PROJECT TRAFFIC FOR SR 514 AT Medplex Pkwy PM Build 94.4% 94.4% 66 8.4% **783** 91.<u>6%</u> 0.0% 7.<u>6%</u> **860** 92.<u>4%</u> 0.<u>0%</u> SR 514 SR 514 2021 AADT 2021 DDHV = 9.00% 2025 AADT 2025 DDHV 9.00% 9.00% K ML = K SS = XXXX XXXX K ML = K SS = (XXXXX) (22000)(24000)(20000)(16000) D Factors 60.0% WB 40.0% EB D Factors 60.0% WB 40.0% EB 66.0% SB 66.0% SB 1082 988 1069 98.8% 0 0.0% 1.5% 873 98.5% SR 514 SR 514 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2015 Medplex Pkwy PIN Build DESIGN HOUR TURNING MOVEMENTS IN YEAR 2022 0.0% 0.0% Wedplex Pkwy PM Build 0.0% 0.0% 0.0% 2.6% 2.6% Medplex Pkwy PM Build (2500) Medplex Pkwy PM Build (2500) 0.0% 0.0% 94.4% 94.4% 99 009 9.9% 666 90.1% 0.0% 8.2% 802 91.8% 0.0% SR 514 SR 514 2015 AADT 2045 DDHV 9.00% 2022 AADT 2022 DDHV 9.00% XXXX K ML = K SS = (XXXXX) XXXX K ML = K SS = (19000)(22000)

K-44



Enter Project and Model Years

From East:

WB Approach

From West:

EB Approach

Enter Base Year AADTs for Volume Comparison:

Year					
Base	2015				
Opening	2021				
Mid	2022				
Design	2025				
Model	2025				

Enter Base and Model Year AADTs for Volume Comparison: (volumes for other project years are calculated by interpolation)

(growth rates are used to calculate other project years)

From South:

NB Approach

From North:

SB Approach

		From East:		From South:	
	EB Approach	WB Approach	SB Approach	NB Approach	TOTAL
2015	16400	14500	0	2400	33300
2025	21600	19100	0	4800	45500

1st Guess Actual/Counted First Guess Turning % Option Used Turning %'s for Traffic Existing Turning Movement Counts **AADT Balancing** for 2015 (EB LT) West-to-North 0.0% O Only the existing year total Existing Year (EB THRU) West-to-East 91.8% 693 departure volumes [AADT\*K\*(1-D)] AADTs (EB RT) West-to-South 8.2% 62 will be used to calculate the turning percentages first guess. (WB LT) East-to-South (WB THRU) East-to-West 97.6% 530 (WB RT) East-to-North 0.0% The turning percentages first guess **Existing Turning** is the same as the actual (SB LT) North-to-East 0.0% Movement distribution of turning volumes (SB THRU) North-to-South 0.0% Counts 0 entered. No balancing technique is (SB RT) North-to-West 0.0% (NB LT) South-to-West Only the FSUTMS model year (NB THRU) South-to-North 0.0% ESUTMS Model departure volumes [AADT\*K\*(1-South-to-East Year AADTs (NB RT) 15.7% D)] will be used to calculate the turning percentages first guess. 1.00 Desired Closure:

Linear

C Exponential

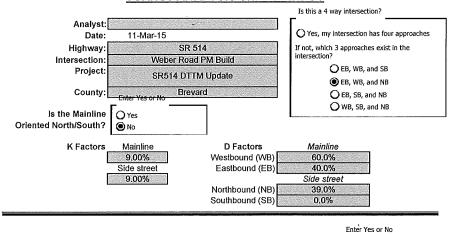
O Decaying

TOTAL

0

(19000)(17000)D Factors 40.0% WB 60.0% EB 61.0% NB D Factors 40.0% WB 60.0% EB 61.0% NB 621 889 0 0.0% 599 96.5% 0.0% 95.6% SR 514 3.5% SR 514 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2025 Weber Road AM Build 929 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2021 Weber Road AM Build 0 0.0% 16.2% 211 217 0 4. 82.1% 0.0% 17.99 264 (4800) Weber Road AM Build Weber Road AM Build (3800)0.0% 177 83.8% 0.0% 217 0.0% %0.0 PROJECT TRAFFIC FOR SR 514 AT Weber Road AM Build 0.0% 0 0.0% 0.0% 0 1054 88.7% 935 11.3% 119 0.0% 1166 87.5% 12.5% SR 514 SR 514 2021-AADT 2021 DDHV 9.00% 2025 AADT 2025 DDHV 9.00% 9.00% XXXXX) XXXX K ML = K SS = XXXX K ML = K SS = (20000)(22000)(XXXXX (15000)(18000)D Factors 40.0% WB 60.0% EB 61.0% NB D Factors 40.0% WB 60.0% EB 61.0% NB 522 638 0.0% 97.5% 2.5% 615 96.4% SR 514 SR 514 0.0% DESIGN HOUR TURNING MOVEMENTS IN YEAR 2015 Weber Road AM Build 209 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2022 0 37 0.00% 16.3% 224 (4100) 0 20 0.0% 15.5% 13.5% Weber Road AM Build Weber Road AM Build (2400)0.0% 112 84.5% 187 83.7% %0.0 Weber Road AM Build 0.0 0.0% 0.0% 0.0% 956 **◆**0 75 0.0% 886 91.5% 8.5% 0.0% 1082 88.4% 11.6% SR 514 SR 514 2022 AADT 2022 DDHV 9.00% 9.00% 2015 AADT 2015 DDHV 9.00% 9.00% K ML = K SS = XXXXX K MIC = K SS = (16000) (XXXXX (20000)XX

K-46

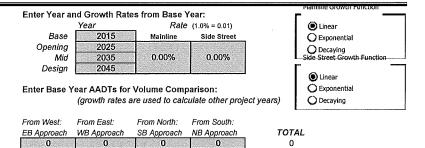


Do you have FTSUTMS Model Year traffic from which you would like to interpolate/extrapolate for project years? (Y/N)

Yes No

If "Yes" go to cell C47

If "No" go to cell C31



**Enter Project and Model Years** 

	Year
Base	2015
Opening	2021
Mid	2022
Design	2025
Model	2025

Enter Base and Model Year AADTs for Volume Comparison: (volumes for other project years are calculated by interpolation)

	From West: EB Approach	From East: WB Approach	From North: SB Approach	From South: NB Approach	TOTAL
2015	16400	14500	0	2400	33300
2025	21600	19100	0	4800	45500

		1st Guess Furning %'s for ADT Balancing	Actual/Coun Traffic for 2015	ted	First Guess Turning % Option Used Existing Turning Movement Counts
(EB LT) (EB THRU) (EB RT)	West-to-North West-to-East West-to-South	0.0% 75.7% 24.3%	0 520 167	Existing Year AADTs	Only the existing year total departure volumes [AADT*K*{1-D}] will be used to calculate the
(WB LT) (WB THRU)	East-to-South East-to-West	4.3% 95.7%	37 821		turning percentages first guess.
(WB RT)	East-to-North	0.0%	0	Existing Turning	The turning percentages first guess is the same as the actual
(SB LT) (SB THRU)	North-to-East North-to-South	0.0%	0	Movement Counts	distribution of turning volumes entered. No balancing technique is
(SB RT)	North-to-West	0.0%	0	1 Annual	used.
(NB LT)	South-to-West	80.2%	85	*	Only the FSUTMS model year
(NB THRU) (NB RT)	South-to-North South-to-East	0.0% 19.8%	0 21	FSUTMS Model Year AADTs	departure volumes [AADT*K*(1- D)] will be used to calculate the
Desired Clos	sure:	1.00			turning percentages first guess.

(17000)(19000)D Factors 60.0% WB 40.0% EB 39.0% NB D Factors 60.0% WB 40.0% EB 39.0% NB 1031 932 983 95.3% 48 4.7% 0.0% 95.9% SR 514 0.0% SR 514 894 **DESIGN HOUR TURNING MOVEMENTS IN YEAR 2025** DESIGN HOUR TURNING MOVEMENTS IN YEAR 2021 0 28 0.0% 20.7% 135 35 20.8% Weber Road PIM Build Weber Road PM Build 0.0% 168 (3800)(4800)%0.0 107 79.3% 133 79.2% 0.0% Weber Road PM Build Weber Road PM Build 0.0% %0.0 PROJECT TRAFFIC FOR SR 514 AT Weber Road PM Build 0.0% 0.0% 0 246 546 157 0.0% **703** 77.<u>6%</u> 22.4% 0.0% 778 75.3% 24.7% SR 514 SR 514 2021 AADT 2021 DDHV 9.00% 2025 AADT 2025 DDHV 9.00% 9.00% XXXX XXXX K ML = K SS = XXXX K ML = K SS = (22000)(20000)(15000)(18000) D Factors 60.0% WB 40.0% EB 39.0% NB D Factors 60.0% WB 40.0% EB 39.0% NB 783 957 0 0.0% 917 95.8% 760 97.0% SR 514 SR 514 0.0% DESIGN HOUR TURNING MOVEMENTS IN YEAR 2015 Weber Road PIN Build 4 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2022 0 30 0.0% 20.7% 143 (4100) 0.0% 20.4% 84 (2400) Weber Road PM Build Weber Road PM Build 67 8.6% %0.0 113 79.3% 0.0% Weber Road PM Build %0.0 0.0% 0.0% 0.0% 555 487 166 0.0% **721** 77.0% 23.0% 0.0% 590 82.5% 17.5% SR 514 SR 514 2015 AADT 2015 DDHV 9.00% 2022 AADT 2022 DDHV 9.00% 9.00% XXXXX) XXXXX XXXXX XXXXX XXXXX XXXXX XXXX KML = K SS = (XXXXX) (16000)(20000)

K-48

			Is this a 4 way interse	ection?	_
Analyst:	-				1
Date:		and department of the second o	1	on has four approaches	
Highway:	SR 514		If not, which 3 approa intersection?	ches exist in the	
Intersection:	Corey Road Al	VI Build	O EB, WE	I. and SB	
Project:	SR514 DTTM	Update	Q EB, WE		
County:	Brevard		O EB, SB		Į
•	Enter Yes or No	 	OWB, SE		
Is the Mainline			J 110, 31	, and the	
Oriented North/South?	<b>●</b> No				
K Factors	Mainline	D Factors	Mainline		
N raciois	9.00%	Westbound (WB)	40.0%		
	Side street	Eastbound (EB)	60.0%		
	9.00%		Side street	<del></del>	
		Northbound (NB)	63.0%		
		Southbound (SB)	37.0%		
			Enter	Yes or No	
Do you have FTSUTMS Mo		-	<b>⊚</b> Ye	s	
interpolate/ex	ktrapolate for project year	s? (Y/N)	ONG	•	
		1510/1 111 0 4		15711-7 411 004	
		If "Yes" go to cell C4	,	If "No" go to cell C31	
			талпле.	STOWUT FUNCTION	
Enter Year an	d Growth Rates from Bas		Га	-	
Base	Year R 2015 Mainline	ate (1.0% = 0.01) Side Street	Line	1	
Opening	2025 Wallillie	Side Street	O Expx	1	
Mid	2035 0.00%	0.00%	Side Stre	et Growth Function	
Design	2045		Γ	$\neg$	
Futor Doco V	aan AADTa fan Valuma Ca		€ Line	ear onential	
Enter Base Yo	ear AADTs for Volume Co growth rates are used to d	•	1	į.	
	(growin rates are used to d	alculate other project	years) Obec	aynig	
From West:	From East: From North	: From South:		•	
EB Approach	WB Approach SB Approac		TOTAL		
. 0	0   0	0	. 0		
Enter Project	and Model Years				
_ :	Year				
Base	2015				
Opening Mid	2021 2022				
Design	2025				
Model	2025				
Enter Base ar	nd Model Year AADTs for (volumes for other project)				
	(volumes for other project)	years are carculated i	y interpolation)		
From West:	From East: From North:	: From South:			
EB Approach	WB Approach SB Approac	ch NB Approach	TOTAL		
2015 14500	12500 700	2200	29900		
2025 19100	16900 1000	3200	40200		
		ess Actual/Counte	d	First Guess Tumin	
	Turning %'s AADT Balanc			Existing Turning M	lovement Counts
(EB LT)	West-to-North 2.9%	ing for 2015 22	( )		
(EB THRU)	West-to-East 93.2%	698	Existing Year	Only the existing year	
(EB RT)	West-to-South 3.9%	29	AADTs	departure volumes   will be used to calcu	
			`/	turning percentages	
(WB LT)	East-to-South 2.6%	10			
(WB THRU) (WB RT)	East-to-West 96.6% East-to-North 0.8%	379	(	The town!	and first contact
(VVD ICI)	Last-10-1901(II   0.676		Existing Turning	The turning percent is the same as the gr	
(SB LT)	North-to-East 41.4%	29	Movement	distribution of turni	
(SB THRU)	North-to-South 11.5%		Counts	entered. No balanci	
(SB RT)	North-to-West 47.1%	33		used.	

50.5%

5.0%

44.5%

0.50

92

81

South-to-West

South-to-North

South-to-East

(NB LT)

(NB RT)

(NB THRU)

Desired Closure:

K-49

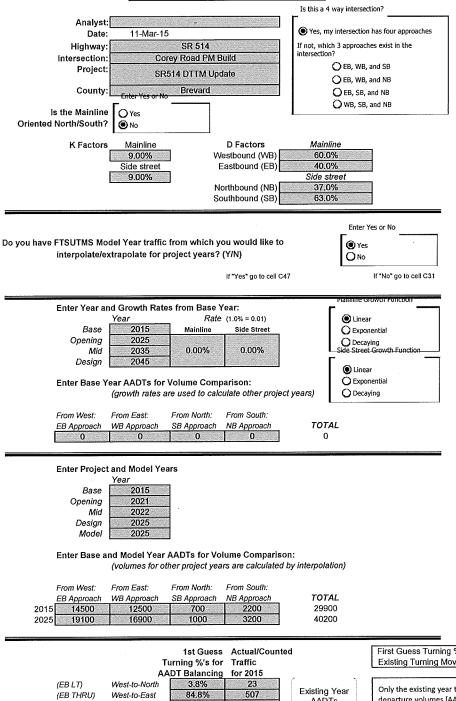
FSUTMS Model Year AADTs

Only the FSUTMS model year departure volumes [AADT\*K\*{1-D}] will be used to calculate the turning percentages first guess.

(15000) (17000)D Factors 40.0% WB 60.0% EB 63.0% NB 37.0% SB D Factors 40.0% WB 60.0% EB 63.0% NB 37.0% SB 545 96.1% SR 514 524 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2025 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2021 Corey Road AM Build 50 6.1% 33.7% 33.7% 34.7% Corey Road AM Build (3200) Corey Road AIM Build 9 159 (2800)8 8 100 63.1% 38 86 1 29.3%1 Corey Road AIM Build 16.9% (1000)55.6% 41 41 816 4.4% 932 87.5% 8.1% 1031 87.5% SR 514 SR 514 2021 AADT 2021 DDHV 9.00% 9.00% 2025 AADT 2025 DDHV 9.00% 9.00% XXXXX) XXXXX K MR = K XXXX XXXX K ML = K SS = (17000)(19000)(13000)(16000)D Factors 40.0% WB 60.0% EB 63.0% NB 37.0% SB D Factors 40.0% WB 60.0% EB 63.0% NB 37.0% SB 561 450 %0''. %0'96 0.5% SR 514 SR 514 **DESIGN HOUR TURNING MOVEMENTS IN YEAR 2015** 437 538 Corey Road AM Build DESIGN HOUR TURNING MOVEMENTS IN YEAR 2022 5 33 4.7% 26.0% 52 31.6% Corey Road AIM Build 5.8% (2200)5.3% 30 17.3% 27.7% 103 62.6% 87 69.3% Corey Road AM Build (700) Corey Road AM Build 23 14.4% 62.3% 55.0% 989 42 **4**837 34 ▶ 4.4% 957 87.4% 8.2% 4.4% 783 87.5% 8.1% SR 514 SR 514 2015 AADT 2015 DDHV 9.00% 2022 AADT 2022 DDHV 9.00% 9.00% XXXXX)
XXXXX
K MIL =
K SS = (15000)(18000)XXXXX) XXXXX X NEW X

PROJECT TRAFFIC FOR SR 514 AT Corey Road AM Build

K-50



	urning %'s for Tra	ctual/Counted raffic r 2015	First Guess Turning % Option Used Existing Turning Movement Counts
(EB THRU) West-to-South	84.8% 11.4%	507 Existing Year AADTs	Only the existing year total departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.
(WB LT) East-to-South (WB THRU) East-to-West (WB RT) East-to-North	5.6% 90.9% 3.5%	50 816 31 Existing Turning	The turning percentages first guess is the same as the <i>actual</i>
(SB LT) North-to-East (SB THRU) North-to-South (SB RT) North-to-West	32.3% 16.1% 51.6%	Movement Counts	distribution of turning volumes entered. No balancing technique is used.
(NB LT) South-to-West (NB THRU) South-to-North (NB RT) South-to-East	56.2% 5.4% 38.4%	41 4 FSUTMS Model 28 Year AADTs	Only the FSUTMS model year departure volumes [AADT*K*(1-D)] will be used to calculate the
Desired Closure:	0.50		turning percentages first guess.

(15000)(17000)D Factors 60.0% WB 40.0% EB 37.0% NB 63.0% SB D Factors 60.0% WB 40.0% EB 37.0% NB 63.0% SB 818 94.5% 93.9% SR 514 SR 514 10 35 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2021 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2025 22 23.2% (2800) Corey Road PM Build Corey Road PM Build 2.3% 93 69 18.8% Corey Road PM Build (880) Corey Road PM Build 50 15.3% PROJECT TRAFFIC FOR SR 514 AT Corey Road PM Build 63.5% 65.9% 16 496 496 2.6% **621** 79.8% 17.6% 2.5% 688 79.9% 17.6% SR 514 SR 514 2025 AADT 2025 DDHV 9.00% 9.00% 2021 AADT 2021 DDHV 9.00% 9.00% XXXX XXXX K ML = K SS = K MC = K SS = (17000)(19000)××× XX (13000) (16000) D Factors 60.0% WB 40.0% EB 37.0% NB 63.0% SB D Factors 60.0% WB 40.0% EB 37.0% NB 63.0% SB 675 841 1.2% 94.4% 4.4% 95.8% 0.9% SR 514 SR 514 794 647 Corey Road PM Build DESIGN HOUR TURNING MOVEMENTS IN YEAR 2022 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2015 2.4% 23.5% 2.0% 18.1% 73 73 Corey Road PM Build 97 (2900)(2200)19.0% 15.0% 58 79.9% 72 74.1% Corey Road PM Build (700) Corey Road PIM Build 12.5% 15.6% 72.5% 65.4% 112 17 93 2.6% 638 79.8% 17.6% 2.7% 522 79.5% 17.8% SR 514 SR 514 2015 AADT 2018 DDHV 2022 AADT 2022 DDHV 9.00% 9.00% XXXXX K ML = K SS = K ML = K SS = (15000) (xxxxx) (18000)

K-52

			Is this a 4 way interse	ction?
Analyst Date Highway Intersection Project County Is the Mainline Oriented North/South?	SR 514 Marie Street A SR514 DTTM Brevard  O Yes No	M Build Update	● Yes, my intersection If not, which 3 approach intersection?  ○ EB, WB, ○ EB, SB, ○ WB, SB   Mainline 40.0% 60.0% Side street 60.0% 40.0%	hes exist in the and SB and NB
•	idel Year traffic from whic xtrapolate for project year	•	Yes O No	Yes or No
Base Opening Mid Design	2015   Mainline	ate (1.0% = 0.01) Side Street 0.00%  omparison: calculate other project From South:	<ul><li> Linea</li><li> Expo</li><li> Deca</li><li> Side Stree</li><li> Linea</li><li> Expo</li></ul>	nential ying t Growth Function ar nential
Enter Project Base Opening Mid Design Model	and Model Years  Year  2015  2021  2022  2025  2025			
Enter Base a	nd Model Year AADTs for (volumes for other project)	•		
From West: EB Approach 2015 12500 2025 16900	From East:         From North           WB Approach         SB Approach           13000         200           17200         200		<b>TOTAL</b> 26300 35000	
(EB LT) (EB THRU)	1st Gur Turning %'s AADT Balanc West-to-North 0.6% 99.0%	for Traffic ing for 2015	Existing Year AADTs	First Guess Turning % Existing Turning Move  Only the existing year to departure volumes (AAI

	1st Guess Actual/Cour	nted	First Guess Turning % Option Used
	Turning %'s for Traffic		Existing Turning Movement Counts
А	ADT Balancing for 2015		
(EB LT) West-to-North	0.6% 5	1 (	
(EB THRU) West-to-East	99.0% 790	Existing Year	Only the existing year total
(EB RT) West-to-South	0.4% 3	AADTs	departure volumes [AADT*K*(1-D)]
,		• \	will be used to calculate the
(WB LT) East-to-South	0.9% 4		turning percentages first guess.
(WB THRU) East-to-West	98.9% 420		
(WB RT) East-to-North	0,2% 1		The turning percentages first guess
,, ======		Existina Turnina	is the same as the actual
(SB LT) North-to-East	33.3% 3	Movement	distribution of turning volumes
(SB THRU) North-to-South		Counts	entered. No balancing technique is
(SB RT) North-to-West	66.7% 6		used.
(OBT(T) NOTH-10-VVest	00.178		useu.
(NB LT) South-to-West	7.7% 3	1 / 5	
, , , , , , , , , , , , , , , , , , , ,	CONTROL TO THE SECOND CONTROL OF THE PROPERTY		Only the FSUTMS model year
(NB THRU) South-to-North	Source Control of the	FSUTMS Model	departure volumes [AADT*K*(1-
(NB RT) South-to-East	92.3% 36	Year AADTs	D)] will be used to calculate the
		$\bigcup$	turning percentages first guess.
Desired Closure:	0.50		

(16000) (17000)D Factors 40.0% WB 60.0% EB 60.0% NB 40.0% SB D Factors 40.0% WB 60.0% EB 60.0% NB 40.0% SB 559 619 97.0% 602 97.3% SR 514 2 0.4% SR 514 542 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2021 Marie Street AM Build DESIGN HOUR TURNING MOVEMENTS IN YEAR 2025 0 33 0.0% 92.4% 36 Marie Street AM Build Marie Street AM Build (099) 0.0% 33.7% 3 3 7.6% 7.7% Marie Street AIM Build (200)PROJECT TRAFFIC FOR SR 514 AT Marie Street AM Build 66.6% 66.3% 6 6 6 6 6 6 1.1% 818 97.7% SR 514 973 97.9% SR 514 2021 AADT 2021 DDHV 9.00% 2025 AADT 2025 DDHV 9.00% 9.00% XXXXX XXXX K ML = K SS = (15000)(XXXXX) (17000)XXXX (16000) (13000)D Factors 40.0% WB 60.0% EB 60.0% NB 40.0% SB D Factors 40.0% WB 60.0% EB 60.0% NB 40.0% SB 574 468 2 0.4% 558 97.1% 14 2.5% 452 96.7% 2 0.4% SR 514 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2015

Marie Street AM Build
(200) Marie Street AM Build
DESIGN HOUR TURNING MOVEMENTS IN YEAR 2022
Marie Street AM Build 0 30 0.0% 92.6% 32 0.0% 92.4% Marie Street AM Build (0/9) 0.0% 33.7% 0.0% 34.3% 7.4% 3 7.6% 66.3% 65.7% 1.1% 9 841 97.8% 823 1.1% 9 **◆**6 657 1.3% **675** 97.4% SR 514 SR 514 2015 AADT 2015 DDHV 9.00% 2022 AADT 2022 DDHV 9.00% XXXX XXXX K SS = (13000)(xxxxx) K ME K SS = (16000)

K-54

			Is this a 4 way interse	ction?
Analyst:			Yes, my intersectio	n has four approaches
Date: Highway:	11-Mar-15 SR 514		If not, which 3 approac	
Intersection:	Marie Street P	OHUNDOTE-BUTTONC CHROSHOS PROBLEMS (PCCPOSSOPIUS	intersection?	and exist in the
Project:			○ EB, WB	, and SB
Q=			O EB, WB	
County:	Enter Yes or No Brevard		O EB, SB,	· ·
Is the Mainline	O Yes		○ WB, SB	, and NB
Oriented North/South?	<b>⊚</b> No			
K Factors	Mainline	D Factors	Mainline	
	9.00%	Westbound (WB)	60.0%	
i	Side street	Eastbound (EB)	40.0%	
į	9.00%	Northbound (NB)	Side street 40.0%	
		Southbound (SB)	60.0%	
			Enter	Yes or No
Do you have FTSUTMS Mod	del Year traffic from whic	h you would like to	<b>⊚</b> Yes	5
interpolate/ex	trapolate for project year	rs? (Y/N)	ŌΝο	1
		If "Yes" go to cell C47	<u> </u>	If "No" go to cell C31
		-		_
Enter Vear an	d Growth Rates from Bas	se Year	таппие с	STOWER PURCEOU
Litter rear an		Rate (1.0% = 0.01)	<b>●</b> Line	ar
Base	2015 Mainline	e Side Street	<b>○</b> Expo	nential
Opening Mid	2025 2035 0.00%	0.00%	O Deca	ying et Growth Function
Design	2045	0.0070	Γ_	
			● Line ○ Expo	
	ear AADTs for Volume Co (growth rates are used to o	•	1 = '	
	(grown rates are assured	sarourate ettier project	, <b>32</b> , <b>3</b>	,,,,,,
	From East: From North		TOTAL	
EB Approach	WB Approach SB Approach 0 0	ch NB Approach  0	TOTAL 0	
Daniel N. Harris Co. Co. S.		A Transference   Commence of the Commence of t		
Enter Project	and Model Years			
Litter Project	Year			
Base	2015			
Opening Mid	2021 2022			
Design	2025			
Model	2025			
Enter Rase an	nd Model Year AADTs for	Volume Comparison		
	(volumes for other project			
	From East: From North WB Approach SB Approach		TOTAL	
2015 <b>12500</b>	13000 200	600	26300	
2025 <b>16900</b>	17200 200	700	35000	
	1st Gu	ess Actual/Counted	l	First Guess Turning % Option Used
	Turning %'s			Existing Turning Movement Counts
(ED LT)	AADT Balance West-to-North 0.2%	ing for 2015	( )	
, ,	West-to-East 99.8%	533	Existing Year	Only the existing year total
	West-to-South 0.0%	0	AADTs	departure volumes [AADT*K*(1-D)] will be used to calculate the
		inclination and convergential Audian consistencial	·f	turning percentages first guess.

(WB LT)

(WB RT)

(SB LT)

(SB RT)

(SB THRU)

(NB LT) (NB THRU) (NB RT)

Desired Closure:

(WB THRU)

East-to-South

East-to-West

East-to-North

North-to-East

North-to-South

North-to-West

South-to-West

South-to-North

South-to-East

2,6%

96.7%

0.7%

0.0%

20.0%

80.0%

32,1% 0.0% 67,9%

0.50

910

0

0

19

Existing Turning Movement Counts

FSUTMS Model Year AADTs The turning percentages first guess is the same as the <u>actual</u>

distribution of turning volumes entered. No balancing technique is used.

Only the FSUTMS model year departure volumes [AADT\*K\*(1-

D)] will be used to calculate the turning percentages first guess.

(16000) (17000)D Factors 60.0% WB 40.0% EB 40.0% NB 60.0% SB D Factors 60.0% WB 40.0% EB 40.0% NB 60.0% SB 838 95.4% 3.9% SR 514 SR 514 33 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2025 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2021 Marie Street PM Build 0.0% 68.1% 24 923 83 Marie Street PM Build Marie Street PM Build (099)0.0% 31.9% Marie Street PM Build 26.5% (200) 11 27.5% F 72.5% 73.5% 0.2% 545 99.8% 0.0% SR 514 SR 514 2025 AADT 2025 DDHV 9.00% 9.00% 2021 AADT 2021 DDHV 9.00% XXXX XXXX K ML = K SS = XXXX K ML = K SS = (15000)(17000)(16000) (13000)D Factors 60.0% WB 40.0% EB 40.0% NB 60.0% SB D Factors 60.0% WB 40.0% EB 40.0% NB 60.0% SB 861 702 95.5% 667 95.0% 0.9% SR 514 SR 514 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2015
Marie Street PM Build Marie Street PM Build DESIGN HOUR TURNING MOVEMENTS IN YEAR 2022 16 68.1% 15 68.7% (670) Marie Street PM Build 0.0% %0.0 22 (009) 0.0% %0.0 31.3% 31.9% Marie Street PM Build 11 28.6% 27.0% 73.0% A 71.4% 260 0.2% **561** 99.8% 0.0% 0.2% **450** 99.8% 0.0% SR 514 2022 AADT 2022 DDHV 2015 AADT 2015 DDHV 9.00% 9.00% XXXXX K ML = K SS = XXXX K ML K K SS = (13000) (16000)

PROJECT TRAFFIC FOR SR 514 AT Marie Street PM Build

Is this a 4 way intersection? Analyst: O Yes, my intersection has four approaches 11-Mar-15 Date: If not, which 3 approaches exist in the intersection? Highway SR 514 Intersection: US 1 AM Build O EB, WB, and SB Project: SR514 DTTM Update C EB, WB, and NB Brevard County: EB, SB, and NB WB, SB, and NB Is the Mainline O Yes Oriented North/South? No K Factors Mainline D Factors Mainline Westbound (WB) 0.0% 9.00% Eastbound (EB) Side street 60.0% Side street 9.00% 54.0% Northbound (NB) Southbound (SB) 46.0% Enter Yes or No Do you have FTSUTMS Model Year traffic from which you would like to Yes interpolate/extrapolate for project years? (Y/N) O<sub>No</sub> If "Yes" go to cell C47 If "No" go to cell C31 Enter Year and Growth Rates from Base Year: Rate (1.0% = 0.01) Linear Base 2015 Side Street Mainline Exponential Opening 2025 O Decaying Side Street Growth Function 0.00% 0.00% Mid 2035 Design 2045 Linear Exponential Enter Base Year AADTs for Volume Comparison: (growth rates are used to calculate other project years) O Decaying From West: From East: From North: From South: TOTAL WB Approach SB Approach NB Approach EB Approach 0 0 Enter Project and Model Years Year Base Opening 2021 Mid 2022 Desian 2025

Model 2025

Enter Base and Model Year AADTs for Volume Comparison:

(volumes for other project years are calculated by interpolation)

From West:	From East:	From North:	From South:	
EB Approach	WB Approach	SB Approach	NB Approach	TOTAL
2015 <b>13000</b>	0	20400	14200	47600
2025 <b>17200</b>	0	33600	23400	74200

1st Guess Actual/Counted First Guess Turning % Option Used Turning %'s for **Existing Turning Movement Counts** Traffic **AADT Balancing** for 2015 (EB LT) West-to-North 74.0% 623 Only the existing year total Existing Year (EB THRU) West-to-East 0.0% 0 departure volumes [AADT\*K\*(1-D)] AAĎTs West-to-South (EB RT) 26.0% 219 will be used to calculate the turning percentages first guess. 0.0% 0 (WB LT) East-to-South (WB THRU) East-to-West 0.0% 0 (WB RT) East-to-North 0.0% n The turning percentages first guess **Existing Turning** is the same as the actual Movement (SB LT) North-to-East distribution of turning volumes Counts (SB THRU) North-to-South 63,2% 355 entered. No balancing technique is (SB RT) North-to-West 36.8% 207 used. (NB LT) South-to-West Only the FSUTMS model year (NB THRU) South-to-North 75.3% 633 FSUTMS Model departure volumes [AADT\*K\*(1-(NB RT) South-to-East 0,0% Year AADTs D)] will be used to calculate the turning percentages first guess. Desired Closure: 0.50

60.0% EB 54.0% NB 46.0% SB 0 60.0% EB 54.0%-NB 46.0% SB 0 D Factors D Factors SR 514 SR 514 958 (20000) US 1 AM Build DESIGN HOUR TURNING MOVEMENTS IN YEAR 2025 DESIGN HOUR TURNING MOVEMENTS IN YEAR 202<sup>o</sup> US 1 AM Build 224 913 15.2% 84.8% 0.0% 15.2% (23000) US 1 AM Build 788 0.0% 0.0% 170 17.7% (28000) 1172 62.7% 1391 64.3% 894 35.7% 37.3% 684 81.6% 838 0.0% 18.4% 83.3% **929** 0.0% 16.7% SR 514 SR 514 2025 AADT 2025 DDHV 9.00% 9.00% 2021-AADT 2021 DDHV 9.00% 9.00% XXXXX) XXXX K ML = K SS = XXXX K MC = K SS = (16000)(17000)0 0 D Factors 60.0% EB 54.0% NB 46.0% SB 60.0% EB 54.0% NB 46.0% SB D Factors SR 514 0.0% SR 514 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2015 US 1 AM Build DESIGN HOUR TURNING MOVEMENTS IN YEAR 2022 0.0% (14000) US 1 AM Build |71 832 |0% 83.0% | 1003 |21000| US 1 AM Build 522 75.7% 069 0.0% 168 24.3% 0.0% 171 17.0% **1227** 63.2% US 1 AM Build 845 58.8% 497 (30000)41.2% 36.8% ₹ 902 546 156 77.8% 0.0% 22.2% 82.0% 0.0% 18.0% SR 514 2022 AADT 2022 DDHV 9.00% 9.00% 2015 AADT 2015 DBHV 9.00% 9.00% 702 861 XXXXX XXXX K ML = K SS = XXXXX XXXXX K ML = K SS = (13000)(16000)

PROJECT TRAFFIC FOR SR 514 AT US 1 AM Build

913 913 913

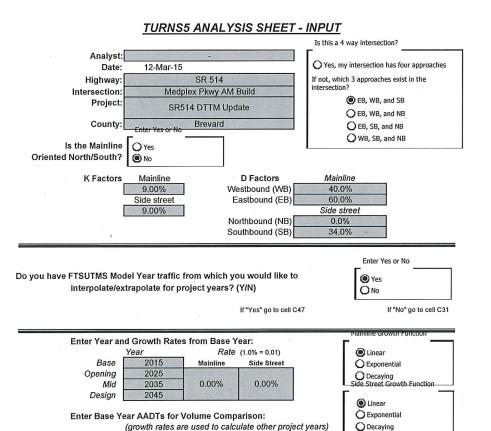
Analyst:   11-Mar-15   11-Mar-					Is this a 4 way interse	ection?
Side street 9.00% Side street Northbound (NB) 46.0% Southbound (SB) 54.0%  Do you have FTSUTMS Model Year traffic from which you would like to interpolate/extrapolate for project years? (Y/N)  Enter Year and Growth Rates from Base Year:  Year Rate (1.0% = 0.01) Base 2015 Mainline Side Street Opening 2025 Opening 2045  Enter Base Year AADTs for Volume Comparison: (growth rates are used to calculate other project years)  From West: From East: From North: From South: EB Approach WB Approach SB Approach NB Approach Mid 2025 Design 2025  Design 2025 Model 2025  Enter Project and Model Year AADTs for Volume Comparison: (volumes for other project years are calculated by interpolation)  From West: From East: From North: From South: EB Approach WB Approach SB Approach NB Approach NB Approach SB Approach NB A	Date: Highway: Intersection: Project: County: Is the Mainline Oriented North/South?	11-Mar-15  US  SR514  Enter Yes or No  Yes  No	1 PM Build DTTM Upda		If not, which 3 approad intersection?  EB, WB  EB, WB  EB, SB,  WB, SE	thes exist in the , and SB , and NB and NB
Do you have FTSUTMS Model Year traffic from which you would like to interpolate/extrapolate for project years? (Y/N)  If "Yes" go to cell C47  If "No" go to cell C31  If "No" go to cell C47  If "No" go to cell C31  If "No" go to cell C47  If "No"	K Factors	9.00% Side street	Ea No	stbound (WB) astbound (EB) rthbound (NB)	0.0% 40.0% Side street 46.0%	
Enter Year and Growth Rates from Base Year:  Year	•		ect years? (	Y/N)		If "No" go to cell C31
Enter Project and Model Years  Year  Base	Base Opening Mid Design Enter Base Yo	2015   2025   2035   2045	Rate Mainline 0.00%  ume Compassed to calcu	(1.0% = 0.01) Side Street  0.00%  arison: late other project y	© Line  ○ Expc  ○ Deca  Side-Stree  © Line	or mential lying t-Growth Function ar onential
Base 2015 Opening 2021 Mid 2022 Design 2025 Model 2025  Enter Base and Model Year AADTs for Volume Comparison: (volumes for other project years are calculated by interpolation)  From West: From East: From North: From South: EB Approach WB Approach SB Approach NB Approach TOTAL 2015 13000 0 20400 14200 47600	EB Approach 0	WB Approach SB	Approach	NB Approach		
From West:         From East:         From North:         From South:           EB Approach         WB Approach         SB Approach         NB Approach         TOTAL           2015         13000         0         20400         14200         47600	Base Opening Mid Design Model	Year 2015 2021 2022 2025 2025 and Model Year AAI				
1st Guess Actual/Counted First Guess Turning 9	From West: EB Approach 2015 13000	From East: From WB Approach SB 0 0	om North: Approach 20400 33600	From South: NB Approach 14200 23400	TOTAL 47600	First Guess Tuming 9

		1st Guess Furning %'s for ADT Balancing	Actual/Coun Traffic for 2015	ted	First Guess Turning % Option Used Existing Turning Movement Counts
(EB LT) (EB THRU) (EB RT)	West-to-North West-to-East West-to-South	60.0% 0.0% 40.0%	278 0 185	Existing Year AADTs	Only the existing year total departure volumes [AADT*K*{1-D}] will be used to calculate the
(WB LT) (WB THRU) (WB RT) (SB LT) (SB THRU) (SB RT)	East-to-South East-to-West East-to-North  North-to-East North-to-South North-to-West	0.0% 0.0% 0.0% 0.0% 50.3% 49.7%	0 0 0 0 655 648	Existing Turning Movement Counts	The turning percentages first guess.  The turning percentages first guess is the same as the <u>actual</u> <u>distribution of turning volumes</u> <u>entered</u> . No balancing technique is used.
(NB LT) (NB THRU) (NB RT)  Desired Clos	South-to-West South-to-North South-to-East sure:	37.1% 62.9% 0.0%	327 555 0	FSUTMS Model Year AADTs	Only the FSUTMS model year departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

0 40.0% EB 46.0% NB 54.0% SB 40.0% EB 46.0% NB 54.0% SB D Factors D Factors SR 514 SR 514 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2025 US 1 PM Build DESIGN HOUR TURNING MOVEMENTS IN YEAR 2021 US 1 PM Build 228 741 0 3.5% 0.0% 0.0% 2.5% 0.0% 2.2000) US 1 PM Build 599 0.0% 73.4% 0.0% 816 (20000) US 1 PM Build 0.0% 217 26.6% (28000) 1376 55.5% 764 1**633** 59.3% 44.5% 40.7% 10 18 372 66.5% 559 0.0% 33.5% 66.7% 619 0.0% 33.3% 2021 AADT 2021 DDHV 9.00% SR 514 SR 514 2025 AADT 2025 DDHV 9.00% 9.00% XXXX XXXX K ML = K SS = (16000)(XXXXX) K SS = (17000)0 40.0% EB 46.0% NB 54.0% SB 40.0% EB 46.0% NB 54.0% SB D Factors D Factors 0.0% DESIGN HOUR TURNING MOVEMENTS IN YEAR 2015 (14000) US 1 PIN Build DESIGN HOUR TURNING MOVEMENTS IN YEAR 2022 0.0% 0.0% 223 631 1% 73.9% 854 (21000) US 1 PIM Build 406 588 0.0% 0:0% 182 31.0% 223 26.1% US 1 PM Build 56.1% 50.8% 503 1441 49.2% 43.9% 308 382 160 192 66.5% 0.0% 33.5% 65.9% **468** 0.0% 34.1% SR 514 SR 514 2015 AADT 2045 DDHV 9.00% 9.00% 2022 AADT 2022 DDHV 9.00% 9.00% 574 XXXX K ML = K SS = XXXX XXXX K ML = K SS = (13000)(16000)

201:06=42

PROJECT TRAFFIC FOR SR 514 AT US 1 PM Build



From South:

NB Approach

TOTAL

2005 B

**Enter Project and Model Years** 

From East:

WB Approach

From West:

EB Approach

Y	ear
Base	2015
Opening	2025
Mid	2035
Design	2045
Model	2045

Enter Base and Model Year AADTs for Volume Comparison: (volumes for other project years are calculated by interpolation)

From North:

SB Approach

	From West: EB Approach	From East: WB Approach	From North: SB Approach	From South: NB Approach	TOTAL
2015		16400	2500	0	37400
2045	31100	29300	2500	0	62900

Actual/Counted First Guess Turning % Option Used 1st Guess **Existing Turning Movement Counts** Turning %'s for Traffic **AADT Balancing** for 2015 (EB LT) West-to-North 11.1% 98 Only the existing year total **Existing Year** (EB THRU) West-to-East 88.9% 787 departure volumes [AADT\*K\*(1-D)] **AADTs** (EB RT) West-to-South 0.0% will be used to calculate the turning percentages first guess. (WB LT) East-to-South 0.0% (WB THRU) East-to-West 98.4% 635 (WB RT) East-to-North 1.6% 10 The turning percentages first guess Existing Turning is the same as the actual North-to-East 7.0% 3 Movement distribution of turning volumes (SB LT) Counts entered. No balancing technique is (SB THRU) North-to-South 0.0% (SB RT) North-to-West 93.0% (NB LT) South-to-West 0.0% Only the FSUTMS model year (NB THRU) South-to-North 0.0% **FSUTMS Model** departure volumes [AADT\*K\*(1-South-to-East (NB RT) 0.0% Year AADTs D)] will be used to calculate the turning percentages first guess. Desired Closure: 1.50

(21000)(29000)D Factors 40.0% WB 60.0% EB D Factors 40.0% WB 60.0% EB 34.0% SB 34.0% SB 1055 745 1.6% 98.4% 0.0% 1042 98.8% SR 514 SR 514 13 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2025
Medplex Phuy AM Build
(2500) DESIGN HOUR TURNING MOVEMENTS IN YEAR 2045
Medplex Pkwy AM Build
(2500) 733 Medplex Pkwy AM Build Medplex Pkwy AM Build 0.0% 7.0% 0.0% 0.0% 7.7% 0.0% 0.0% PROJECT TRAFFIC FOR SR 514 AT Medplex Pkwy AM Build 92.3% 93.0% 135 11.0<u>%</u> 1226 89.0<u>%</u> SR 514 1679 92.0% SR 514 2045 AADT 2045 DDHV 9.00% 9.00% 2026 AADT 2025 DDHV 9.00% 9.00% XXXXX XXXXX K ML = K SS = K ML = K SS = (23000)(31000)(XXXXX) XX (25000) (16000) D Factors 40.0% WB 60.0% EB D Factors 40.0% WB 60.0% EB 34.0% SB 34.0% SB 230 900 1.3% 11 1.9% 579 98.1% SR 514 0.0% SR 514 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2035
Medplex Pkwy AM Build
(2500) DESIGN HOUR TURNING MOVEMENTS IN YEAR 2015

Medplex Pkvy AM Build
(2500) 888 0.0% Medplex Pkwy AM Build 7.2% 0.0% %8.9 0.0% 0.0 0.0% 93.2% 92.8% 134 135 864 864 1319 9.2% 1453 90.8% 0.0% 13.5% **999** 86.5% 0.0% SR 514 2015 AADT 2015 DDHV 9.00% 2035 AADT 2035 DDHV 9.00% 9.00% XXXXX XXXX K ML = K SS = (XXXXX) XXXX K ML = K SS = (19000)(27000)

K-62

			Is this a 4 way interse	etion?	
Analyst			Yes, my intersection	has four approaches	
Date: Highway:	LOS CARROLLOS CONTRACTOR DE CO		If not, which 3 approach		
Intersection:	Medplex Pkwy		intersection?		
Project:	SR514 DTTM	Update			
County:	Brevaro	1	O EB, SB,	1	
Is the Mainline	Enter Yes or No	1	○ wb, sb,	l l	
Oriented North/South?	•			J	
K Factors	L	] D.Fastere	Mainline		
A Factors	Mainline 9,00%	D Factors Westbound (WB)	60.0%		
	Side street	Eastbound (EB)	40.0%		
	9.00%	Northbound (NB)	Side street 0.0%		
		Southbound (SB)	66.0%		
Do you have FTSUTMS Mo interpolate/e:	del Year traffic from whic ktrapolate for project year		Enter © Yes	res or No	
Enter Vegran	nd Growth Rates from Bas	no Voor:	палтие С	TOWER PURCEOU	
Liller rear ar		Rate (1.0% = 0.01)	<ul><li>Linea</li></ul>	r	
Base Opening	2015 Mainline 2025	e Side Street	O Expo		
Mid	2035 0.00%	0.00%	Side Stree	ying t Growth Function	
Design	2045		<b>●</b> Linea	ır 🗍	
Enter Base Y	ear AADTs for Volume Co (growth rates are used to		<b>○</b> Expo	nential	
From West:	From East: From North	: From South:			
EB Approach	WB Approach SB Approa	ch NB Approach	TOTAL 0		
		U			
Enter Project	and Model Years				
•	Year				
Base Opening	2015 2025				
Mid	2035				
Design Model	2045 2045				
Enter Base a	nd Model Year AADTs for (volumes for other project	•			
From West:	From East: From North		TOTAL		
EB Approach 2015 18500	WB Approach SB Approa 16400 2500	ch NB Approach 0	<b>TOTAL</b> 37400		
2045 31100	29300 2500	COLORIDADO E ECONOMISMO DE OTROMO E PORTO DE LA COLORIDADA DE COLORIDA DE COLORIDADA DE COLORIDA DE COLORIDA DE COLORIDA DE COLORIDA DE COLORIDA DE COLORIDA	62900		
	1st Gu			First Guess Turning % Existing Turning Move	
	Turning %'s AADT Baland			LAISTING LALLING MOV	ement
(EB LT)	West-to-North 5.8%	43	Existing Year	Only the existing year to	otal
(EB THRU) (EB RT)	West-to-East 94,2% West-to-South 0.0%		AADTs	departure volumes [AA will be used to calculate	DT*K*
				turning percentages fire	
(WB LT)	East-to-South 0.0%	0		L	

n Used Counts (1-D)] (WB THRU) East-to-West 99,1% 0.9% (WB RT) East-to-North The turning percentages first guess Existing Turning Movement Counts is the same as the actual distribution of turning volumes entered. No balancing technique is (SB LT) North-to-East (SB THRU) North-to-South 0.0% 0 (SB RT) North-to-West 94.1% 0.0% (NB LT) South-to-West Only the FSUTMS model year departure volumes [AADT\*K\*(1-FSUTMS Model Year AADTs (NB THRU) South-to-North 0.0% 0 (NB RT) South-to-East 0.0% D)] will be used to calculate the turning percentages first guess. Desired Closure: 1,50

(21000)(29000)D Factors 60.0% WB 40.0% EB D Factors 60.0% WB 40.0% EB 66.0% SB 66.0% SB 13 1.2% 1105 98.8% 1118 1582 99.1% SR 514 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2045

Medplex Pkwy PM Build
(2500) 1568 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2025 Medplex Pkwy PM Build (2500) Medplex Pkwy PM Build 0.0% 0.0% 5.9% 0 0.0% 0.0% 5.8% 0.0% 94.2% 65 7 7.9% 817 92.1% 0.0% 5.<u>7%</u> 1120 94.3% SR 514 2025 AAD7 2025 DDHV 9.00% SR 514 2045 AADT 2045 DDHV 9.00% 9.00% XXXXX) XXXXX K ML = K SS = (31000)(23000)(XXXXX) X SS = (16000) (25000) D Factors 60.0% WB 40.0% EB D Factors 60.0% WB 40.0% EB 66.0% SB 66.0% SB 1.0% 99.0% 1350 988 873 98.5% 1.5% SR 514 0.0% SR 514 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2015

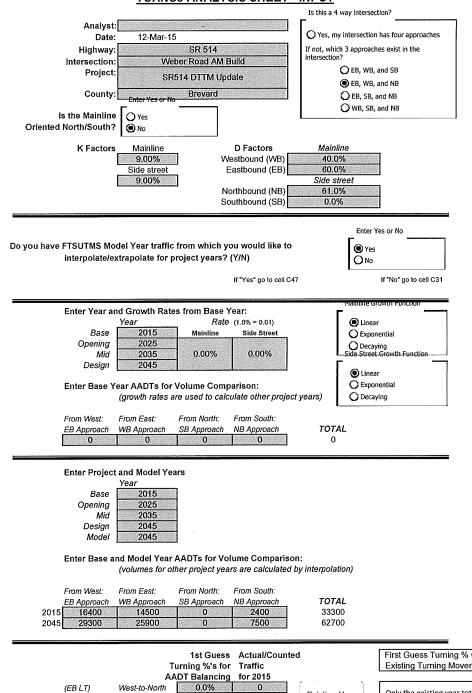
Medplex Pkny PM Build
(2500)

149

94.4%
0.0%
5.6%
8 1336 Medplex Pkwy PM Build DESIGN HOUR TURNING MOVEMENTS IN YEAR 2035 Medplex Pkwy PM Build 0.0% %0.0 Medplex Pkwy PM Build 5.6% 149 0.0% 5.9% 0.0% %0.0 94.1% 009 ₹ 99 ₹ 19 6.6% **968** 93.4% 0.0% 9.9% **666** 90.1% 0.0% SR 514 2015 AADT 2015 DDHV 9.00% 2035 AADT 2035 DDHV 9.00% 9.00% XXXXX) XXXXX KMIL = K SS = XXXXX) XXXXX K ML K SS = (19000)(27000)

PROJECT TRAFFIC FOR SR 514 AT Medplex Pkwy PM Build

K-64

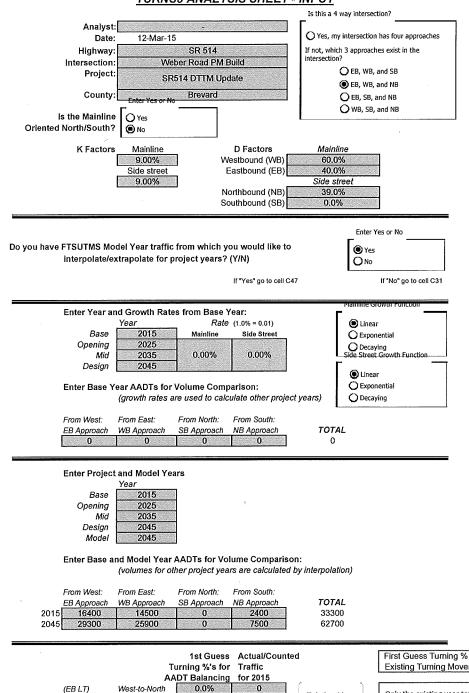


		1st Guess Actual/Cour	nted	First Guess Turning % Option Used Existing Turning Movement Counts
(EB LT) (EB THRU) (EB RT)	West-to-North West-to-East West-to-South	ADT Balancing for 2015  0.0% 0  91.8% 693  8.2% 62	Existing Year AADTs	Only the existing year total departure volumes [AADT*K*(1-D)] will be used to calculate the
(WB LT) (WB THRU) (WB RT) (SB LT)	East-to-South East-to-West East-to-North North-to-East	2.4% 13 97.6% 530 0.0% 0	Existing Turning Movement Counts	The turning percentages first guess  The turning percentages first guess is the same as the <u>actual</u> <u>distribution of turning volumes</u>
(SB THRU) (SB RT) (NB LT)	North-to-South North-to-West South-to-West	0.0% 0 0.0% 0	Couris	entered. No balancing technique is used.  Only the FSUTMS model year
(NB THRU) (NB RT) Desired Clos	South-to-North South-to-East sure:	0.0% 0 15.7% 27	FSUTMS Model Year AADTs	departure volumes [AADT*K*(1- D)] will be used to calculate the turning percentages first guess.

(18000)(26000)D Factors 40.0% WB 60.0% EB 61.0% NB D Factors 40.0% WB 60.0% EB 61.0% NB 629 932 93.2% 96.5% 0.0% 6.8% SR 514 3.5% SR 514 636 Weber Road AM Build
DESIGN HOUR TURNING MOVEMENTS IN YEAR 2045 698 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2025 Weber Road AM Build 63 487 0.0% 23.9% 36 Weber Road AM Build 0.0% (4100)0.0% 0 **▲** 189 0.0% Weber Road AIM Build 0.0% 0.0% 0.0% 0.0% 0 0.0% 0 1118 88.<u>6% 991</u> 11.4% 127 0.0% 1582 86.4% 13.6% SR 514 SR 514 2045 AADT 2045 DDHV **9.00**% 9.00% 2025 AADT 2025 DDHV 9.00% XXXXX XXXX K ML = K SS = XXXX K M K (21000)(29000)(15000)(22000)D Factors 40.0% WB 60.0% EB 61.0% NB D Factors 40.0% WB 60.0% EB 61.0% NB 522 96/ 0.0% 97.5% 0.0% SR 514 SR 514 509 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2015 Weber Road AM Build 3 Weber Road AM Build
DESIGN HOUR TURNING MOVEMENTS IN YEAR 2035 255 0 20 0.0% 15.5% 62 19.6% Weber Road AM Build 0.0% 318 132 (2400)256 80.4% 112 84.5% 0.0% Weber Road AM Build 0.0% %0.0 %0.0 811 **◆** 1176 75 0.0% 886 91.5% 8.5% 0.0% 1350 87.1% 12.9% SR 514 SR 514 2035 AADT 2035 DDHV 9.00% 9.00% 2015 AADT 2015 DDHV 9.00% XXXXX) XXXXX K MK = K SS = XXXX K ML = K SS = (16000)(25000)

PROJECT TRAFFIC FOR SR 514 AT Weber Road AM Build

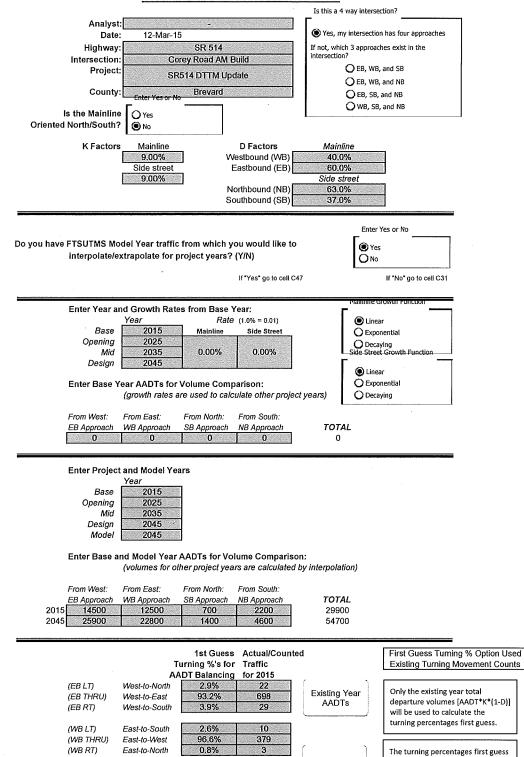
K-66



	1st Guess Turning %'s for AADT Balancing	Actual/Counted Traffic for 2015		First Guess Turning % Option Used Existing Turning Movement Counts
(EB THRU) West	-to-North	0 520 167	Existing Year AADTs	Only the existing year total departure volumes [AADT*K*(1-D)] will be used to calculate the
(WB THRU) East-	to-South 4.3%   1.50-West   95.7%   1.50-North   0.0%   1.50-West   1.50-West	37 821 0		turning percentages first guess.  The turning percentages first guess
(SB THRU) North	n-to-East 0.0% n-to-South 0.0% n-to-West 0.0%	0 0	Existing Turning Movement Counts	is the same as the <u>actual</u> <u>distribution of turning volumes</u> <u>entered</u> . No balancing technique is used.
(NB THRU) Souti	h-to-West 80.2% h-to-North 0.0% h-to-East 19.8%	85 0 21	FSUTMS Model Year AADTs	Only the FSUTMS model year departure volumes [AADT*K*(1-D)] will be used to calculate the
Desired Closure:	1.00	_		turning percentages first guess.

(26000)(18000)D Factors 60.0% WB 40.0% EB 39.0% NB D Factors 60.0% WB 40.0% EB 39.0% NB 1399 886 93.8% 95.9% 0.0% SR 514 SR 514 947 1312 (4100)
Weber Road PIN Build
DESIGN HOUR TURNING MOVEMENTS IN YEAR 2045 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2025 0.0% 24.1% 0.0% 263 V 27.3 V 2500) 0 30 0.0% 20.7% 144 (7500) Weber Road PM Build 0.0% 114 79.3% %0.0 Weber Road PIM Build Weber Road PM Build 0.0% 0.0% PROJECT TRAFFIC FOR SR 514 AT Weber Road PM Build 0.0% 0.0% 168 168 0.0% **745** 77.<u>5%</u> 22.5% 0.0% 1055 72.9% 27.1% SR 514 SR 514 2045 AADT 2045 DDHV 9.00% 9.00% 2025 AABT 2025 DDHV 9.00% XXXX XXXX K ML = K SS = (21000)(xxxxx) K ML (29000)(22000) (15000) D Factors 60.0% WB 40.0% EB 39.0% NB D Factors 60.0% WB 40.0% EB 39.0% NB 1193 783 1135 95.1% 1 97.0% 0.0% SR 514 SR 514 092 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2015 Weber Road PM Build DESIGN HOUR TURNING MOVEMENTS IN YEAR 2035 Weber Road PM Build 0.0% 20.9% 20.9% (5800) 0.0% 20.4% Weber Road PM Build Weber Road PM Build (2400)0.0% 67 79.6% 161 79.1% 0.0% 0.0% 0.0% 0 %0.0 487 **◆** 0 029 103 0.0% 590 82.5% 17.5% 0.0% **900** 74.5% 25.5% SR 514 SR 514 2015-AADT 2015 DDHV 9.00% 9.00% 2035 AADT 2035 DDHV 9.00% XXXX K ME = K SS = XXXXX) XXXXX XXXXX XXXXX XXXXX (XXXXX (16000)(25000)

K-68



(SBLT)

(SB RT)

(NB LT)

(NB RT)

(NB THRU)

Desired Closure:

(SB THRU)

North-to-East

North-to-South

North-to-West

South-to-West

South-to-North

South-to-East

41.4%

11.5%

47.1%

50,5%

5.0%

44.5%

0,50

29

R

33

Existing Turning

Movement

Counts

FSUTMS Model

Year AADTs

is the same as the actual

used.

distribution of turning volumes

Only the FSUTMS model year

departure volumes [AADT\*K\*(1-

D)] will be used to calculate the turning percentages first guess.

entered. No balancing technique is

(16000) (23000)D Factors 40.0% WB 60.0% EB 63.0% NB 37.0% SB D Factors 40.0% WB 60.0% EB 63.0% NB 37.0% SB 366 574 \$ 95.4% 96.2% SR 514 SR 514 552 Corey Road AM Build
DESIGN HOUR TURNING MOVEMENTS IN YEAR 2045 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2025 Corey Road AM Build 9 50 5.4% 29.4% (4600) Corey Road AM Build (3000)31 16.6% 25.9% 111 Corey Road AIM Build (1400)57.5% 52.7% 4.4% 62 1399 86.8% 1214 8.8% 12 43 **4**862 **8**83 4.4% 988 87.2% 8.4% SR 514 SR 514 2045 AADT 2045 DDHV 9.00% 9.00% 2025 AADT 2025 DDHV 9.00% 9.00% (XXXXX) XXXX K ML = XXXX XXXX XXXX XXXX XXXX SS = SS K SS = (18000)(26000)(13000)(19000) D Factors 40.0% WB 60.0% EB 63.0% NB 37.0% SB D Factors 40.0% WB 60.0% EB 63.0% NB 37.0% SB 420 697 0.7% 95.8% %0.76 0.5% SR 514 SR 514 437 Corey Road AM Build
DESIGN HOUR TURNING MOVEMENTS IN YEAR 2035
Corey Road AM Build 899 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2015 4.7% 26.0% 125 13 68 5.8% 31.7% **215** Corey Road AM Build (2200)18.1% 27.5% 7 23.3% 87 69.3% 134 62.5% Corey Road AM Build 23 54.4% 62.3% **♦** 686 4.4% 52 1193 87.0% 1038 8.6% 177 \$2 ₽ 4.4% **783** 87.<u>5%</u> 8.1% SR 514 SR 514 2035 AADT 2035 DDHV 9.00% 9.00% 2015 AADT 2015 DDHV 9.00% K ML= K SS= XXXX K-MIC = K SS = (XXXXX) (15000) (22000)

PROJECT TRAFFIC FOR SR 514 AT Corey Road AM Build

Analyst Date Highway Intersection Project County Is the Mainline Oriented North/South? K Factors	SR 514 Corey Road P SR514 DTTM Brevard  Yes  Yes  No	M Build Update	Was a way intersection     If not, which 3 approach intersection?     BB, WB,     BB, SB,     WB, SB,     WB, SB,      Mainline     60.0%     40.0%      Side street     37.0%     63.0%	n has four approaches hes exist in the and SB and NB and NB	
Do you have FTSUTMS Mo interpolate/e	del Year traffic from whic xtrapolate for project year	•	● Yes ○ No	If "No" go to cell C31	
Base Opening Mid Design	rind Growth Rates from Bas Year R 2015 Maintine 2025 2035 2045 0.00% Year AADTs for Volume Co	Cate (1.0% = 0.01) E Side Street 0.00%	● Linea ○ Expo	nential ying t Growth Function	
From West: EB Approach 0 Enter Project	(growth rates are used to deferm East: From North SB Approach 0 0 0 tand Model Years	: From South:	years) O Deca  TOTAL  0	ving	
Base Opening Mid Design Model	Year 2015 2025 2035 2035 2045 2045				
From West: EB Approach 2015 14500 2045 25900	No.   No.   No.	years are calculated b			
(EB LT) (EB THRU) (EB RT) (WB LT) (WB THRU) (WB RT) (SB LT) (SB THRU)	Turning %'s	23   507   68   50   816   31	Existing Year AADTs  Existing Turning Movement Counts	First Guess Turnin Existing Turning M Only the existing yedeparture volumes will be used to calcuturning percentages  The turning percent is the same as the adistribution of turning entered. No balancia	ar total [AADT*K*(1-D)] allate the first guess.  ages first guess  ctual ag volumes
(SB RT) (NB LT) (NB THRU) (NB RT)	North-to-West         51.6%           South-to-West         56.2%           South-to-North         5.4%           South-to-East         38.4%	41	FSUTMS Model Year AADTs	Only the FSUTMS m departure volumes D)] will be used to c	[AADT*K*(1-

Desired Closure:

0.50

turning percentages first guess.

(16000) (23000)D Factors 60.0% WB 40.0% EB 37.0% NB 63.0% SB D Factors 60.0% WB 40.0% EB 37.0% NB 63.0% SB 860 94.8% 1.1% 6 SR 514 SR 514 σ 816 Corey Road Pin Build
DESIGN HOUR TURNING MOVEMENTS IN YEAR 2045 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2025 22 22 2.3% 21.6% Corey Road PM Build 100 (3000)76 76.1% 17.6% Corey Road PM Build (930) Corey Road PIM Build 53 14.9% PROJECT TRAFFIC FOR SR 514 AT Corey Road PM Build 62.9% 50 67.5% 18 522 119 2.7% 659 79.2% 18.1% 2.6% **932** 78.8% 18.6% SR 514 SR 514 2045 AADT 2045 DDHV 9.00% 9.00% 2025 AADT 2025 DDHV 9.00% XXXX XXXX K ML = K SS = K ML = K SS = (XXXXX) (18000)(26000)(13000) (19000) D Factors 60.0% WB 40.0% EB 37.0% NB 63.0% SB D Factors 60.0% WB 40.0% EB 37.0% NB 63.0% SB 1046 675 14 1.3% 983 94.0% 49 4.7% 95.8% 3.3% 0.9% SR 514 SR 514 647 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2015 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2035 2 13 2.0% 18.1% 2.0% 18.1% 18.1% 2.3% 3 30 2.5% 23.6% 127 Corey Road PM Build (2200) Corey Road PM Build 66 16.3% 19.0% 13 58 79.9% 94 73.9% 15.0% 6 Corey Road PM Build (700) Corey Road PIM Build 12.5% 64.7% 72.5% 415 629 2.6% **796** 79.1% 18.3% 2.7% **522** 79.5% 17.8% SR 514 SR 514 2036 AADT 2035 DDHV 9.00% 9.00% 2015 AADT 2015 DDHV 9.00% 9.00% XXXXX XXXXX K-MRC = K SS = XXXX K M K SS = (XXXXX (22000)(15000)

K-72

			Is this a 4 way interse	ction?	<u>_</u>
Analyst: Date: Highway: Intersection: Project: County: Is the Mainline Oriented North/South? K Factors	4-Mar-15 SR 514 Marie Street A SR514 DTTM  Enter Yes or No Pes No Mainline	M Build Update I D Factors	Yes, my intersectio     If not, which 3 approace intersection?	hes exist in the , and SB , and NB and NB	
,	9.00% Side street 9.00%	Westbound (WB) Eastbound (EB)  Northbound (NB) Southbound (SB)	40.0% 60.0% Side street 60.0% 40.0%		
Do you have FTSUTMS Mo interpolate/ex	del Year traffic from whic ktrapolate for project year		Yes O No		
Base Opening Mid Design Enter Base Y	2015 Mainlin 2025 2035 2045  ear AADTs for Volume Co (growth rates are used to 6)	Rate (1.0% = 0.01) e Side Street 0.00%  comparison: calculate other project	● Lines  ○ Expo  ○ Deca  Side-Stree  ● Lines  ○ Expo	nential lying lt Growth Function ar onential	
From West: EB Approach 0	From East: From North WB Approach SB Approa 0 0		TOTAL 0		
Base Opening Mid Design Model	and Model Years Year 2015 2025 2035 2045 2045				
From West: EB Approach 2015 12500 2045 22800	nd Model Year AADTs for (volumes for other project   From East:   From North WB Approach   13000   200   23200   200	years are calculated b			
(EB LT) (EB THRU) (EB RT) (WB LT) (WB THRU)	1st Gu   Turning %'s   AADT Balant   West-to-North   West-to-East   West-to-South   East-to-South   East-to-West   98.9%	5 for Traffic cing for 2015 5 790 3 4	Existing Year AADTs		(AADT*K*(1-D))

East-to-North

North-to-East

North-to-South

North-to-West

South-to-West South-to-North

South-to-East

(WB RT)

(SB LT) (SB THRU)

(NB LT) (NB THRU) (NB RT)

Desired Closure:

(SB RT)

0.2%

33.3%

0.0%

66.7%

7,7% 0,0% 92,3%

0.50

3

0

0

36

otal DT\*K\*(1-D)] the t guess. The turning percentages first guess Existing Turning Movement Counts is the same as the <u>actual</u> distribution of turning volumes entered. No balancing technique is used. Only the FSUTMS model year departure volumes [AADT\*K\*(1-D)] will be used to calculate the turning percentages first guess. FSUTMS Model Year AADTs

(16000)(23000)D Factors 40.0% WB 60.0% EB 60.0% NB 40.0% SB D Factors 40.0% WB 60.0% EB 60.0% NB 40.0% SB 230 835 97.7% SR 514 SR 514 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2025 573 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2045 33 92.5% Marie Street AM Build Marie Street AM Build 0.0% 36 (0.29)7.5% 1%9.7 0.0% 33.9% Marie Street AM Build Marie Street AM Build (200)PROJECT TRAFFIC FOR SR 514 AT Marie Street AM Build 66.5% 66.1% 1.0% 9 860 97.9% 842 1.1% 0.<u>7%</u> 1231 98.<u>4%</u> 0.<u>9%</u> SR 514 SR 514 2045 AADT 2045 DDHV 9.00% 9.00% 2025 AADT 2025 DDHV 9.00% XXXXX XXXX K ML = K SS = XXXX K ML = K SS = (16000)(23000)(13000)(20000) D Factors 40.0% WB 60.0% EB 60.0% NB 40.0% SB D Factors 40.0% WB 60.0% EB 60.0% NB 40.0% SB 713 468 0.4% 96.7% 2.9% 695 97.5% SR 514 SR 514 2 0.3% DESIGN HOUR TURNING MOVEMENTS IN YEAR 2015

Marie Street AM Build
(200) DESIGN HOUR TURNING MOVEMENTS IN YEAR 2035 452 30 30 0 37 0.0% 92.4% Marie Street AM Build Marie Street AM Build 0.0% (009) 0.0% 34.3% 0.0% 33.7% 7.6% 7.4% Marie Street AM Build (200) 66.3% 65.7% 9 627 1.3% 675 97.4% 1.3% 0.9% **1046** 98.1% SR 514 SR 514 2015 AADT 2015 DDHV 9.00% 9.00% 2035 AADT 2035 DDHV 9.00% 9.00% XXXXX XXXXX K MR = K SS = XXXXX) XXXXX KAMIC = K SS = (13000)(19000)

K-74

			Is this a 4 way intersect	ion?
Analyst Date Highway Intersection Project County Is the Mainline	12-Mar-15  SR 514  Marie Street P  SR514 DTTM  Enter Yes or No  Brevard	M Build Update	Yes, my intersection If not, which 3 approach intersection?  EB, WB, (  EB, WB, (  EB, SB, a  WB, SB, (  )  WB, SB, (  )	es exist in the
Oriented North/South?	● No	D Factors Westbound (WB) Eastbound (EB) Northbound (NB) Southbound (SB)	Mainline 60.0% 40.0% Side street 40.0% 60.0%	· 
•	odel Year traffic from whic xtrapolate for project year		Yes No	es or No  If "No" go to cell C31
Base Opening Mid Design Enter Base Y	2015   Mainling   2025   2035   2045	ate (1.0% = 0.01)  side Street  0.00%  omparison: calculate other project	© Linear  O Expon  O Decay  Side Street  O Linear  Expon	ential ing Growth Function  ential
From West: EB Approach 0	From East: From North WB Approach SB Approa  0 0  t and Model Years		TOTAL 0	
Base Opening Mid Design Model	2015			
From West: EB Approach 2015 12500 2045 22800	From East: From North WB Approach SB Approa 13000 200 23200 200		<i>TOTAL</i> 26300 47000	
(EB LT) (EB THRU) (EB RT) (WB LT)	1st Gu   Turning %'s   AADT Baland   West-to-North   West-to-East   West-to-South   0.0%   East-to-South   2.6%	for Traffic cing for 2015	d  Existing Year  AADTs	First Guess Turning % Option Us Existing Turning Movement Could the existing year total departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.
(WB THRU) (WB RT) (SB LT) (SB THRU) (SB RT)	East-to-West 96.7% East-to-North 0.7%  North-to-East North-to-South 20.0% North-to-West 80.0%	910 7 0 1	Existing Turning Movement Counts	The turning percentages first guess is the same as the <u>actual</u> <u>distribution of turning volumes entered</u> . No balancing technique is used.

(NB LT)

(NB RT)

(NB THRU)

Desired Closure:

South-to-West

South-to-North

South-to-East

80.0% 32.1% 0.0%

67.9%

0.50

0

FSUTMS Model Year AADTs

Only the FSUTMS model year departure volumes [AADT\*K\*(1-

D)] will be used to calculate the turning percentages first guess.

(16000)(23000)D Factors 60.0% WB 40.0% EB 40.0% NB 60.0% SB D Factors 60.0% WB 40.0% EB 40.0% NB 60.0% SB 1253 988 96.3% 95.6% SR 514 0.7% 3 SR 514 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2045 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2025 847 0 16 0.0% 68.3% **24** 76.8 (800) Marie Street PM Build Marie Street PM Build (670)0.0% 31.7% 0.0% Marie Street PM Build Marie Street PM Build 23.6% 11 26.6% F (200)73.4% 76.4% 0.2% 574 99.8% 0.0% SR 514 SR 514 2045 AADT 2045 DDHV 9.00% 9.00% 2025 AADT 2025 DDHV 9.00% 9.00% XXXXX XXXX K ML = K SS = XXXX K ML = K SS = (23000)(16000)(20000) (13000)D Factors 60.0% WB 40.0% EB 40.0% NB 60.0% SB D Factors 60.0% WB 40.0% EB 40.0% NB 60.0% SB 1069 702 95.0% 95.9% 0.9% SR 514 0.6% SR 514 1026 299 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2015

Marie Street PM Build DESIGN HOUR TURNING MOVEMENTS IN YEAR 2035 18 68.0% 15 68.7% Marie Street PM Build Marie Street PM Build 0.0% 0.0% 22 (009) 0.0% 0.0% 31.3% 8 32.0% Marie Street PIM Build 25.1% 11 28.6% £ (200)74.9% 71.4% 449 0.2% **697** 99.8% 0.0% 0.2% **450** 99.8% 0.0% SR 514 SR 514 2035 AADT 2035 DDHV 2015 AADT 2015 DDHV 9.00% 9.00% XXXX K ML = K SS = XXXXX) XXXXX K ML = K SS = (13000)(19000)

PROJECT TRAFFIC FOR SR 514 AT Marie Street PM Build

K-76

				Is this a 4 way inters	ection?
Analyst Date Highway Intersection Project County Is the Mainlin Oriented North/South? K Factors	SR51  Enter Yes or No  Yes  No	E N		Yes, my intersecti If not, which 3 approaintersection?  EB, WI EB, SE WB, SI  Mainline 0.0% 60.0% Side street 54.0% 46.0%	3, and SB 3, and NB 3, and NB
o you have FTSUTMS Mo interpolate/e	odel Year traffic fi xtrapolate for pro			Ente	
Base Opening Mid Design	From East: F	Rate Mainline 0.00%	0.00%	© Lind	onential saying set Growth Function ear onential
Base Opening Mid Design Model		ADTs for Vo	lume Comparison		
From West: EB Approach 2015 13000 2045 23200	From East: F	er project yea From North: SB Approach 20400 48600	From South: NB Approach 14200 36800	TOTAL 47600 108600	
(EB LT)		1st Guess rning %'s for PT Balancing 74.0%	r Traffic	Existing Year	First Guess Turning Existing Turning Mo

		1st Guess urning %'s for ADT Balancing	Actual/Counte Traffic for 2015	d	First Guess Turning % Option Used Existing Turning Movement Counts
(EB THRU) V	West-to-North West-to-East West-to-South	74.0% 0.0% 26.0%	623 0 219	Existing Year AADTs	Only the existing year total departure volumes [AADT*K*(1-D)] will be used to calculate the
(WB THRU) E (WB RT) E (SB LT) M (SB THRU) M	East-to-South East-to-West East-to-North  North-to-East North-to-South North-to-West	0.0% 0.0% 0.0% 0.0% 63.2% 36.8%	0 0 0 0 355 207	Existing Turning Movement Counts	The turning percentages first guess is the same as the <u>actual</u> <u>distribution of turning volumes</u> <u>entered</u> . No balancing technique is used.
(NB THRU)	South-to-West South-to-North South-to-East e:	24.7% 75.3% 0.0%	208 633 0	FSUTMS Model Year AADTs	Only the FSUTMS model year departure volumes [AADT*K*(1-D)] will be used to calculate the turning percentages first guess.

0 0 60.0% EB 54.0% NB 46.0% SB D Factors 60.0% EB 54.0% NB 46.0% SB D Factors %0'0 SR 514 SR 514 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2045 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2025 1547 84.5% 0.0%] 1780 (37000) US 1 AM Build (22000) US 1 AM Build 853 80.8% **1056** 0.0% 277 15.5% 203 19.2% (49000) 2012 69.1% 1390 **US 1 AM Build** (30000) US 1 AM Build 1234 64.4% 795 30.9% 35.6% PROJECT TRAFFIC FOR SR 514 AT US 1 AM Build € 669 187 78.9% 886 0.0% 21.1% SR 514 SR 514 2025 AADT 2025 DDHV 9.00% 9.00% 2045 AADT 2045 DDHV 9.00% 9.00% XXXX XXXX K ML = K SS = XXXX XXXX K MI K SS = (16000)60.0% EB 54.0% NB 46.0% SB 0 60.0% EB 54.0% NB 46.0% SB D Factors D Factors %0.0 SR 514 %0.0 SR 514 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2015 (14000) US 1 AM Build DESIGN HOUR TURNING MOVEMENTS IN YEAR 2035 0.0% 0.0% 1422 (29000) US 1 AM Build 522 75.7% 069 82.9% (39000) 1623 67.4% 0.0% 168 24.3% 243 17.1% %0.0 **US 1 AM Build** (20000) **845** 58.8% 497 41.2% 32.6% 529 246 ₽ 845 79.0% 0.0% 21.0% 77.8% **702** 0.0% 22.2% SR 514 SR 514 2015 AADT 2015 DDHV 9.00% 2035 AADT 2035 DDHV 9.00% 1069 XXXX K ML K (xxxxx) (13000)(20000)K ML: K SS =

K-78

			is this a 4 way interse	COOII:	
Analyst:	_		Γ		
Date:	12-Mar-15		Yes, my intersection	n has four approaches	
Highway:	SR 51	4	If not, which 3 approac	hes exist in the	
Intersection:	US 1 PM I	Shikaning Stolen September 1 Control of the Control	intersection?		
Project:			◯ EB, WB,	, and SB	
,	SR514 DTTM	Update	O EB, WB,	and NB	
County:	Brevar	d	<b>●</b> EB, SB,		
	Enter Yes or No		1 =		
Is the Mainline	O Yes		O WB, SB,	, and NB	
Oriented North/South?	⊚ No				
	9.10	J			
K Factors	Mainline	D Factors	Mainline		
1	9,00%	Westbound (WB)	0,0%		
'	Side street	Eastbound (EB)	40.0%		
	9.00%	, ,	Side street	<del></del>	
		Northbound (NB)	46.0%		
		Southbound (SB)	54.0%		
			Enter 1	Yes or No	
Do you have FTSUTMS Mod	del Year traffic from whic	ch you would like to	<b>⊚</b> Yes		
interpolate/ex	trapolate for project yea	rs? (Y/N)	O No		
•		, .	10		
		If "Yes" go to cell C47	,	If "No" go to cell C31	
			riailline G	STOWER PURCOON	
Enter Year an	d Growth Rates from Ba	se Year:	Г		
		Rate (1.0% = 0.01)	<ul><li>Linea</li></ul>	ar i	
Base	2015 Mainlir	ne Side Street	<b>○</b> Expo	nential	
Opening	2025		O Deca	ying	
Mid	2035 0.00%	6 0.00%	Side Stree	t Growth Function	
Design	2045		Γ 🔊		
			Linea	1	
	ear AADTs for Volume C		O Expo		
	(growth rates are used to	calculate other project	years) Oeca	aying	
	From East: From Nort				
EB Approach	WB Approach SB Approa	ach NB Approach	TOTAL		
			TOTAL 0		
EB Approach	WB Approach SB Approa	ach NB Approach			
EB Approach 0	WB Approach SB Approach 0 0	ach NB Approach			
EB Approach 0	WB Approach SB Approach 0 0	ach NB Approach			
EB Approach 0 Enter Project	WB Approach SB Approach 0 0  and Model Years Year	ach NB Approach			
EB Approach 0 Enter Project Base	WB Approach SB Approach 0 0  and Model Years Year 2015	ach NB Approach			
EB Approach 0 Enter Project Base Opening	WB Approach SB Approach 0 0  and Model Years Year 2015 2025	ach NB Approach			
EB Approach 0  Enter Project  Base Opening Mid	WB Approach SB Approach 0 0  and Model Years  Year  2015 2025 2035	ach NB Approach			
EB Approach 0  Enter Project  Base Opening Mid Design	WB Approach SB Approach 0 0  and Model Years Year 2015 2025 2035 2045	ach NB Approach			
EB Approach 0  Enter Project  Base Opening Mid	WB Approach SB Approach 0 0  and Model Years  Year  2015 2025 2035	ach NB Approach			
Enter Project  Base Opening Mid Design Model	WB Approach SB Approach 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	ach NB Approach 0	0		
Enter Project  Base Opening Mid Design Model  Enter Base ar	WB Approach	ach NB Approach 0	0		
Enter Project  Base Opening Mid Design Model  Enter Base ar	WB Approach SB Approach 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	ach NB Approach 0	0		
Enter Project  Base Opening Mid Design Model  Enter Base an	WB Approach	r Volume Comparisor	0		
Enter Project  Base Opening Mid Design Model  Enter Base ar	WB Approach  O  and Model Years Year  2015 2025 2035 2045 2045  and Model Year AADTs for (volumes for other project) From East: From North	r Volume Comparisor years are calculated the	0		
EB Approach  O  Enter Project  Base Opening Mid Design Model  Enter Base ar  From West: EB Approach	WB Approach  O  and Model Years Year  2015 2025 2035 2045 2045  and Model Year AADTs for (volumes for other project) From East: From Nort. WB Approach SB Approach	r Volume Comparisor years are calculated to the From South: ach NB Approach	n: ny interpolation)		
Enter Project  Base Opening Mid Design Model  Enter Base an	WB Approach  O  and Model Years Year  2015 2025 2035 2045 2045  and Model Year AADTs for (volumes for other project) From East: From Nort. WB Approach SB Approach	r Volume Comparison years are calculated the From South: nch NB Approach 14200	n: ny interpolation) TOTAL		
Enter Project  Base Opening Mid Design Model  Enter Base and From West: EB Approach 2015 13000	### Approach    O	r Volume Comparison years are calculated the From South: nch NB Approach 14200	n: ny interpolation) TOTAL 47600		
Enter Project  Base Opening Mid Design Model  Enter Base an	### Approach    O	r Volume Comparison years are calculated the From South: nch NB Approach 14200	n: ny interpolation) TOTAL 47600		
Enter Project  Base Opening Mid Design Model  Enter Base an	### Approach	r Volume Comparison by years are calculated by the From South: ach NB Approach 14200 136800	n: by interpolation) TOTAL 47600 108600	First Guess Turning % Option	
Enter Project  Base Opening Mid Design Model  Enter Base an	### Approach	r Volume Comparison years are calculated to the From South: ach NB Approach 1 14200 1 36800  Less Actual/Counter to Traffic	n: by interpolation) TOTAL 47600 108600	First Guess Turning % Option Existing Turning Movement Co	
Enter Project  Base Opening Mid Design Model  Enter Base ar  From West: EB Approach 2015 13000 2045 23200	### Approach	r Volume Comparison r years are calculated to the From South: Act. NB Approach 1 14200 1 36800  D 36800  D 1 14200 Traffic cing for 2015	n: by interpolation) TOTAL 47600 108600		
Enter Project  Base Opening Mid Design Model  Enter Base an  From West: EB Approach 2015 13000 2045 23200	### Approach	r Volume Comparison by years are calculated to the From South: NB Approach 0 14200 0 36800  Luess Actual/Counters for Traffic cing for 2015 6 278	n: ry interpolation)  TOTAL 47600 108600	Existing Turning Movement Co	
Enter Project  Base Opening Mid Design Model  Enter Base ar  From West: EB Approach 2015 13000 2045 23200	### Approach	r Volume Comparison  years are calculated to the From South: ach NB Approach 0 14200 0 36800  uess Actual/Counters for Traffic cing for 2015 6 278	n: ny interpolation)  TOTAL 47600 108600		unts
Enter Project  Base Opening Mid Design Model  Enter Base ar  From West: EB Approach 2015 13000 2045 23200	### Approach	r Volume Comparison  years are calculated to the From South: ach NB Approach 0 14200 0 36800  uess Actual/Counters for Traffic cing for 2015 6 278	n: ry interpolation)  TOTAL 47600 108600	Existing Turning Movement Co	unts
Enter Project  Base Opening Mid Design Model  Enter Base ar  From West: EB Approach 2015 13000 2045 2045 (EB LT) (EB THRU) (EB RT)	### Approach	r Volume Comparison years are calculated to the From South: Actual/Counter for 2015 278 278 280 291 36800	n: ny interpolation)  TOTAL 47600 108600	Existing Turning Movement Co  Only the existing year total departure volumes [AADT*K*(1-1)]	unts
Enter Project  Base Opening Mid Design Model  Enter Base an  From West: EB Approach 2015 13000 2045 23200  (EB LT) (EB THRU) (EB RT) (WB LT)	### Approach SB Approach O O O O O O O O O O O O O O O O O O O	r Volume Comparison r years are calculated to the From South: NB Approach 0 14200 0 36800  Usess Actual/Counters for Traffic cing for 2015 6 278 0 0 6 185	n: ny interpolation)  TOTAL 47600 108600	Existing Turning Movement Co Only the existing year total departure volumes [AADT*K*(1-t will be used to calculate the	unts
Enter Project  Base Opening Mid Design Model  Enter Base an  From West: EB Approach 2015 13000 2045 23200  (EB LT) (EB THRU) (EB RT) (WB LT) (WB LT) (WB THRU)	### Approach SB Approach O O O O O O O O O O O O O O O O O O O	r Volume Comparison by years are calculated to the From South: NB Approach 0 14200 0 36800  Luess Actual/Counters for 2015 6 278 0 0 6 185	n: ny interpolation)  TOTAL 47600 108600	Existing Turning Movement Co Only the existing year total departure volumes [AADT*K*(1-t will be used to calculate the turning percentages first guess.	ounts (i))]
Enter Project  Base Opening Mid Design Model  Enter Base an  From West: EB Approach 2015 13000 2045 23200  (EB LT) (EB THRU) (EB RT) (WB LT) (WB LT) (WB THRU)	### Approach SB Approach O O O O O O O O O O O O O O O O O O O	r Volume Comparison by years are calculated to the From South: NB Approach 0 14200 0 36800  Luess Actual/Counters for 2015 6 278 0 0 6 185	n: by interpolation)  TOTAL 47600 108600	Existing Turning Movement Co Only the existing year total departure volumes [AADT*K*(1-t) will be used to calculate the turning percentages first guess.  The turning percentages first gue	ounts (i))]
Enter Project  Base Opening Mid Design Model  Enter Base an  From West: EB Approach 2015 13000 2045 23200  (EB LT) (EB THRU) (EB RT) (WB LT) (WB THRU) (WB RT)	### Approach	r Volume Comparison years are calculated to the From South: ach NB Approach 0 14200 0 36800  Less Actual/Counter for 2015 6 278 0 0 6 185 0 0 6 0 0 0	n: ny interpolation)  TOTAL 47600 108600  Existing Year AADTs  Existing Turning	Only the existing year total departure volumes [AADT*K*(1-f will be used to calculate the turning percentages first guess.  The turning percentages first gue is the same as the actual	ounts (i))]
Enter Project  Base Opening Mid Design Model  Enter Base an  From West: EB Approach 2015 13000 2045 23200  (EB LT) (EB THRU) (EB RT) (WB LT) (WB RT) (SB LT)	### Approach	r Volume Comparison  r Volume Comparison  r years are calculated by  the From South:  the F	n: by interpolation)  TOTAL 47600 108600  Existing Year AADTs  Existing Turning Movement	Only the existing year total departure volumes [AAD1*K*(1-t will be used to calculate the turning percentages first guess.  The turning percentages first gue is the same as the actual distribution of turning volumes	ounts (D))]
Enter Project  Base Opening Mid Design Model  Enter Base an  From West: EB Approach 2015 13000 2045 23200  (EB LT) (EB THRU) (EB RT) (WB LT) (WB RT) (SB LT) (SB THRU)	### Approach	r Volume Comparison years are calculated to the From South: NB Approach 10 14200 10 36800  Luess Actual/Counters for Traffic cing for 2015 10 278 10 0 10 0 10 0 10 0 10 0 10 0 10 0 10	n: ny interpolation)  TOTAL 47600 108600  Existing Year AADTs  Existing Turning	Only the existing year total departure volumes [AADT*K*(1-f will be used to calculate the turning percentages first guess.  The turning percentages first gue is the same as the actual	ounts (D))]

37.1% 62.9%

0.0%

5.00

South-to-West

South-to-North

South-to-East

(NB LT) (NB THRU) (NB RT)

Desired Closure:

327 555

0

FSUTMS Model

Year AADTs

Only the FSUTMS model year departure volumes [AADT\*K\*(1-

D)] will be used to calculate the turning percentages first guess.

0 40.0% EB 46.0% NB 54.0% SB 0 40.0% EB 46.0% NB 54.0% SB D Factors D Factors SR 514 SR 514 US 1 PM Build DESIGN HOUR TURNING MOVEMENTS IN YEAR 2045 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2025 US 1 PM Build (30000) 22.8% 147 0 0.0% 152.8% 0.0% 1524 1650 0.0% 0.0 (37000) US 1 PM Build 0.0% 657 73.0% **900** (22000)0.0% 243 27.0% US 1 PM Build 1448 56.9% 824 43.1% 382 62.9% **835** 0.0% 37.1% 64.7% 590 0.0% 35.3% SR 514 SR 514 2025 AADT 2025 DDHV 9.00% 2045 AADT 2045 DDHV 9.00% 9.00% XXXXX)
XXXXX
K ML = K SS = XXXXX) XXXX K ML = K SS = (16000) (23000)0 40.0% EB 46.0% NB 54.0% SB 40.0% EB 46.0% NB 54.0% SB D Factors D Factors 0.0% SR 514 SR 514 DESIGN HOUR TURNING MOVEMENTS IN YEAR 2015 US 1 PM Build DESIGN HOUR TURNING MOVEMENTS IN YEAR 2035 0.0% 0.0% 588 (14000) US 1 PM Build (29000) **US 1 PM Build** 910 75.1% 406 0.0% 182 31.0% %0.0 0 302 24.9% (20000) 991 50.8% US 1 PM Build **1905** 60.2% 1147 49.2% 39.8% 729 457 308 160 65.9% 0.0% 34.1% 64.1% 0.0% 35.9% SR 514 SR 514 2035 AADT 2035 DDHV 9.00% 2015 AADT 2015 DDHV 9.00% 713 468 XXXX XXXX K ML = K SS = (13000)(XXXXX) (20000)

PROJECT TRAFFIC FOR SR 514 AT US 1 PM Build

K-80

# Appendix L

Signal Warrant Analysis Sheets

City: <b>Town of Mala</b> b		ric .	SIGIV	IAL V	VAN		gineer:		<b>4</b> IX I				
County: Brevard	, and				Date: March 10, 2015								_
Major Street: SR 514 No-bui Minor Street: Weber Road	ld					Lan Lan		1	Critical	Approa	ach Spe	ed: <b>55m</b>	nph
Volume Level Criteria         1. Is the critical speed of major street traffic > 70 km/h (40 mph)?       ☒ Yes ☐ No         2. Is the intersection in a built-up area of isolated community of <10,000 population?       ☐ Yes ☒ No         If Question 1 or 2 above is answered "Yes", then use "70%" volume level       ☒ 70% ☐ 100%													)%
WARRANT 1 - EIGHT-HOUR  Warrant 1 is satisfied if Condition A  Warrant is also satisfied if both Cond  Condition A - Minimum Vehicu	or Cond dition A	lition B is and Cor	s "100%"	satisfie		ed.	1		licable: atisfied: atisfied:		Yes Yes Yes	□ No ⊠ No ⊠ No	
80% Satisfied: Yes No													
							Eiç	ht Higl	nest Ho	urs			]
(volumes in veh/hr)			equirent in Brac		- M	PM -	PM -	AM -	- M4	PM -	- - -	- MA	
Approach Lanes	1		2 or	more	5:00 PM	0 P	0 P	0 A	0 P	:00 P	8:00 AM	12:00	
Volume Level	100%	70%	100%	70%	5:0	4:00	3:00	7:00	2:00	1:0	8:0	12:	ļ
Both Approaches	500	350	600	420	1,738	1,587	1,432	1,392	1,242	1,219	1,215	1,184	į
on Major Street Highest Approach	(400) 150	(280) 105	(480) 200	(336) 140	·		·	·	·				
on Minor Street	(120)	(84)	(160)	(112)	131	129	104	299	104	98	210	135	į
Record 8 highest hours and the minimum volumes are met for e											urs.		I
Condition B - Interruption of C Condition B is intended for appli so heavy that traffic on the mind	ication v	vhere the	e traffic v		5		1	cessive 00% Sa 80% Sa	atisfied: atisfied:	X X	Yes Yes Yes Yes	□ No 図 No □ No □ No	1
	N4::-	D.					Eiç	ht Higl	nest Ho	urs	Ī	<u> </u>	
(volumes in veh/hr) Approach Lanes		Shown	equirem in Brad		PM -	PM -	PM -	AM -	PM-	PM-	AM -	0 PM -	
Volume Level	100%	70%	100%	70%	5:00	4:00	3:00	00:2	2:00	1:00	8:00	12:00	
Both Approaches on Major Street	750 (600)	525 (420)	900 (720)	630 (504)	1,738	1,587	1,432	1,392	1,242	1,219	1,215		
Highest Approach on Minor Street	75 (60)	53 (42)	100 (80)	70 (56)	131	129	104	299	104	98	210	135	

Record 8 highest hours and the corresponding volumes in boxes provided. Condition is 100% satisfied if the minimum volumes are met for eight hours. Condition is 80% satisfied if parenthetical volumes are met for eight hours.

Other Terms of Meleber														
	City: Town of Mala	bar					En	gineer:						
	County: Brevard							Date:	March	10, 201	5			
	Major Street: SR 514 No-bu	ild					Lan	es: '	1	Critical	Approa	ach Spe	ed: <b>55m</b>	ph
	Minor Street: Corey Road						Lan	es:	1					
Vo	lume Level Criteria													
	<ol> <li>Is the critical speed of major</li> </ol>						Yes	☐ No						
	2. Is the intersection in a built-u	000 pop	oulation	?			Yes	⊠ No						
If Question 1 or 2 above is answered "Yes", then use "70%" volume level   ☑ 70%												70%	☐ 100°	%
WARRANT 1 - EIGHT-HOUR VEHICULAR VOLUME  Applicable: ☑ Yes ☐ No														
•	Warrant 1 is satisfied if Condition A				atisfied:		Yes	⊠ No						
Warrant is also satisfied if both Condition A and Condition B are "80%" satisfied.														
	Condition A - Minimum Vehic	ular \/-	luma					4	00% Sa	tiofical.	_	Yes	IVI NI≏	
	Condition A - Minimum Venic	ular vo	iume					-			_	Yes	⊠ No ⊠ No	
80% Satisfied:												103		
				_				Eiç	ht Hig	nest Ho	urs			
	(contrare a la contrata)			equiren			1	1		1	1	1	-	
	(volumes in veh/hr) Approach Lanes	•	<u>Snown</u> 1	in Brac	ckets) more	PM	PM	ΑM	ΡM	AM	PM	PM	PM	
						2:00	4:00	7:00 AM	3:00	8:00	2:00	:00	2:00	
	Volume Level	100%	70%	100%	70%	5:	4	7:	33.		2:	-:-	12	
	Both Approaches	500	350	600	420 (336)	1,474	1,398	1,249	1,213	1,104	1,093	1,000	958	
	on Major Street Highest Approach	(400) 150	(280) 105	(480) 200	140									
	on Minor Street	(120)	(84)	(160)	(112)	84	71	219	84	169	96	93	103	
L	Record 8 highest hours and the	e corresp	onding v	volumes	in boxes									
	minimum volumes are met for	eight hou	ırs. Cor	ndition is	80% sat	tisfied if p	parenthe	etical volu	umes are	e met for	eight ho	urs.		
	Condition B - Interruption of	Continu	ious Tr	affic					App	licable:	X	Yes	□ No	
	Condition B is intended for app				olume is	5		Ex		Delay:		Yes	⊠ No	
	so heavy that traffic on the min	or street	suffers 6	excessiv	e delay.			1	00% Sa	atisfied:	X	Yes	☐ No	
									80% Sa	atisfied:	X	Yes	☐ No	
								Eig	ht Higi	nest Ho	urs		$\overline{}$	
				equiren			1	1		ı	1	1		
	(volumes in veh/hr)	(80%	Shown	in Brad		₽₩	PM.		ΡM	¥	PM	PM.	₽	
	Approach Lanes		1		more	9	)0 F	7:00 AM	90	8:00 AM	)0 F		12:00 PM	
	Volume Level	100%	70%	100%	70%	5:00	4:00	7:0	3:00	9:6	2:00	1:00	12	
	Both Approaches	750	525	900	630	1,474	1,398	1,249	1,213	1,104	1,093	1,000	958	
	on Major Street	(600) 75	(420) 53	(720) 100	(504) 70						,			
	Highest Approach on Minor Street	84	71	219	84	169	96	93	103					
	511 11111151 511051	(60)	(42)	(80)	(56)									

Record 8 highest hours and the corresponding volumes in boxes provided. Condition is 100% satisfied if the minimum volumes are met for eight hours. Condition is 80% satisfied if parenthetical volumes are met for eight hours.

	•	11711		J. J	.,	, , , , , ,			,	~! \ !				
	City: Town of Mala	bar					En	gineer:		40.004				
	County: Brevard							Date:	March	10, 201	5			
	Major Street: SR 514 Build						Lan	es: 2	2	Critical	Approa	ach Spe	ed: <b>55m</b>	ph
	Minor Street: Weber Road						Lan	es:	2					,
	lume Level Criteria													
	Is the critical speed of major			_			Yes	□ No						
	2. Is the intersection in a built-	ıp area	of isolat	ted com	munity	of <10,0	000 pop	oulation	?		Ц	Yes	⊠ No	
	If Question 1 or 2 above is answ	wered "\	es", the	en use '	'70%" v	olume l	evel				X	70%	□ 100°	%
W	ARRANT 1 - EIGHT-HOUF	VEHI	CULA	R VOL	UME				Ann	licable:	X	Yes	□ No	
	Warrant 1 is satisfied if Condition A					d.				atisfied:		Yes	⊠ No	
Warrant is also satisfied if both Condition A and Condition B are "80%" satisfied.														
	Condition A - Minimum Vehic	ular Vo	luma					1	00% Sa	atisfied:	п	Yes	⊠ No	
	Condition A - William Verno	uiai VO	iuiiic					-		atisfied:		Yes	⊠ No	
F														
			D.					Eig	ht Hig	hest Ho	urs			
	(volumes in veh/hr)			equiren in Brad		<u> </u>				<u> </u>			>	
	Approach Lanes	_	<u> </u>	2 or		P	PM	PM	AM	PM	PM	AM	D PM	
	Volume Level	100%	70%	100%	70%	5:00 PM	4:00	3:00	7:00	2:00	1:00	8:00	2:00	
ŀ	Both Approaches	500	350	600	420									
	on Major Street	(400)	(280)	(480)	(336)	1,939	1,769	1,597	1,551	1,385	1,360	1,355	1,321	
	Highest Approach	150	105	200	140	131	129	104	299	104	98	210	135	
	on Minor Street	(120)	(84)	(160)	(112)							210	133	
	Record 8 highest hours and the minimum volumes are met for											urs.		
		Ü				,					3			
	Condition B - Interruption of							_		licable:		Yes	□ No	
	Condition B is intended for app so heavy that traffic on the min					5				Delay:		Yes Yes	⊠ No	
	so neavy that traffic on the min	or street	Sulleis	excessivi	e uelay.					atisfied:		Yes	□ No	
									00 /0 00	ationeu.		163		
								Eiç	ht Higl	hest Ho	urs			
	(volumes in veh/hr)			equirent in Brac						<u> </u>	<u>.</u>		- Md	
	Approach Lanes		<u>Snown</u> 1		more	₽	PM	PM	ΑA	₽	PM	AM	0 P	
	Volume Level	100%	70%	100%	70%	5:00 PM	4:00	3:00	7:00 AM	2:00 PM	1:00	8:00	12:00	
ŀ	Both Approaches													
	on Major Street						1,769	1,597	1,551	1,385	1,360	1,355	1,321	
	Highest Approach	70	131	129	104	299	104	98	210	135				
	on Minor Street	(60)	(42)	(80)	(56)	101	129	104	∠33	104	90	∠10	133	

Record 8 highest hours and the corresponding volumes in boxes provided. Condition is 100% satisfied if the minimum volumes are met for eight hours. Condition is 80% satisfied if parenthetical volumes are met for eight hours.

City: Town of Malal County: Brevard	bar			·/ \		En	gineer:		10, 201	5		
Major Street: SR 514 Build Minor Street: Corey Road						Lan Lan	nes:	2	•		ach Spe	ed: <b>55mph</b>
Volume Level Criteria         1. Is the critical speed of major street traffic > 70 km/h (40 mph)?												
WARRANT 1 - EIGHT-HOUR  Warrant 1 is satisfied if Condition A  Warrant is also satisfied if both Con  Condition A - Minimum Vehice	lition B is and Cor		ed.	-				Yes Yes Yes Yes	□ No ⊠ No  ⊠ No			
			103									
	N#! !	D				Eight Highest Hou						
(volumes in veh/hr) Approach Lanes		Shown	equiren in Brad 2 or	ckets)	- M M	PM -	AM -	- MA	AM -	- Md	- Md	- MA c
Volume Level	100%	70%	100%	70%	5:00	4:00	7:00 /	3:00	8:00 AM	2:00	1:00	2:00
Both Approaches on Major Street	500 (400)	350 (280)	600 (480)	420 (336)	1,656	1,568		1,361	1,238	1,225		1,075
Highest Approach on Minor Street	150 (120)	105 (84)	200 (160)	140 (112)	84	71	219	84	169	96	93	103
Record 8 highest hours and the minimum volumes are met for e											urs.	
Condition B - Interruption of C Condition B is intended for app so heavy that traffic on the mine	lication v	vhere th	e traffic v		3		1				Yes Yes Yes Yes	□ No ⊠ No □ No □ No
							Eiç	ht Higl	nest Ho	urs		
(volumes in veh/hr) Approach Lanes		Shown	equiren in Brad 2 or		0 PM -	0 PM -	7:00 AM -	0 PM -	8:00 AM -	0 PM -	0 PM -	2:00 PM -
Volume Level	100% 70% 100% 70%				5:00	4:00	7:0	3:00	8:0	2:00	1:00	12:
Both Approaches on Major Street	750 (600)	525 (420)	900 (720)	630 (504)	1,656	1,568	1,399	1,361	1,238	1,225	1,122	1,075
Highest Approach on Minor Street	75 (60)	53 (42)	100 (80)	70 (56)	84	71	219	84	169	96	93	103

Record 8 highest hours and the corresponding volumes in boxes provided. Condition is 100% satisfied if the minimum volumes are met for eight hours. Condition is 80% satisfied if parenthetical volumes are met for eight hours.

# Appendix M

Synchro Output Sheets - No Build Alternative

Intersection								
Int Delay, s/veh	1.3							
Movement	EBL	EBT			WBT	WBR	SBL	SBR
Vol, veh/h	112	1063			757	11	5	72
Conflicting Peds, #/hr	0	0			0	2	0	0
Sign Control	Free	Free			Free	Free	Stop	Stop
RT Channelized	-	None			-	None	-	None
Storage Length	200	-			-	160	0	0
Veh in Median Storage, #	-	0			0	-	1	-
Grade, %	-	0			0	-	0	-
Peak Hour Factor	92	92			92	92	92	92
Heavy Vehicles, %	4	4			4	4	0	5
Mvmt Flow	122	1155			823	12	5	78
Major/Minor	Major1				Major2		Minor2	
Conflicting Flow All	823	0			-	0	2222	823
Stage 1	- 020	-			-	-	823	
Stage 2	-	-			-	-	1399	-
Critical Hdwy	4.14	-			-	-	6.4	6.25
Critical Hdwy Stg 1	-	-			-	-	5.4	-
Critical Hdwy Stg 2	-	-			-	-	5.4	-
Follow-up Hdwy	2.236	-			-	-	3.5	3.345
Pot Cap-1 Maneuver	798	-			-	-	48	369
Stage 1	-	-			-	-	435	-
Stage 2	-	-			-	-	231	-
Platoon blocked, %		-			-	-		
Mov Cap-1 Maneuver	798	-			-	-	41	369
Mov Cap-2 Maneuver	-	-			-	-	139	-
Stage 1	-	-			-	-	435	-
Stage 2	-	-			-	-	196	-
Approach	EB				WB		SB	
HCM Control Delay, s	1				0		18.3	
HCM LOS							С	
Minor Lane/Major Mvmt	EBL	EBT	WBT W	BR SBLn	1 SRI n2			
Capacity (veh/h)	798	-	-	- 13 <sup>1</sup>				
HCM Lane V/C Ratio	0.153	<u>-</u>	<u>-</u>		9 0.212			
HCM Control Delay (s)	10.3		-	- 0.03				
HCM Lane LOS	В		-		) C			
HCM 95th %tile Q(veh)	0.5	_	_	- 0.				
1.5W 75W 75W 2(VOII)	0.5			0.	. 0.0			

M-1

	-	•	•	•	4	~
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	<b>1</b>		ሻ	<u> </u>	¥/	
Volume (vph)	881	167	34	582	211	53
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%	12	12	0%	0%	12
Storage Length (ft)	0 70	0	255	0 70	0	0
Storage Lanes		0	1		1	0
Taper Length (ft)		J	25		25	U
Satd. Flow (prot)	1787	0	1736	1827	1751	0
Flt Permitted	1707	U	0.087	1027	0.962	U
Satd. Flow (perm)	1787	0	159	1827	1751	0
	1/0/	Yes	109	1027	1701	Yes
Right Turn on Red	11	res			11	res
Satd. Flow (RTOR)	14			FF	14	
Link Speed (mph)	45			55	30	
Link Distance (ft)	2095			5235	1845	
Travel Time (s)	31.7			64.9	41.9	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	4%	4%	4%	2%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1140	0	37	633	287	0
Turn Type	NA		pm+pt	NA	Prot	
Protected Phases	4		3	8	2	
Permitted Phases			8			
Detector Phase	4		3	8	2	
Switch Phase						
Minimum Initial (s)	4.0		4.0	4.0	4.0	
Minimum Split (s)	20.0		8.0	20.0	20.0	
Total Split (s)	45.0		15.0	60.0	30.0	
Total Split (%)	50.0%		16.7%	66.7%	33.3%	
Yellow Time (s)	3.5		3.5	3.5	3.5	
All-Red Time (s)	0.5		0.5	0.5	0.5	
. ,						
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	4.0		4.0	4.0	4.0	
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes	N	p. a.	
Recall Mode	None		None	None	Min	
Act Effct Green (s)	41.9		47.6	47.6	16.4	
Actuated g/C Ratio	0.58		0.66	0.66	0.23	
v/c Ratio	1.09		0.15	0.53	0.70	
Control Delay	77.9		6.9	9.2	34.6	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	77.9		6.9	9.2	34.6	
LOS	Е		Α	Α	С	

	<b>→</b>	$\rightarrow$	•	←	•	<i>&gt;</i>
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Approach Delay	77.9			9.1	34.6	
Approach LOS	E			А	С	
Intersection Summary						
Area Type:	Other					
Cycle Length: 90						
Actuated Cycle Length: 72	2.2					
Natural Cycle: 90						
Control Type: Actuated-U	ncoordinated					
Maximum v/c Ratio: 1.09						
Intersection Signal Delay:	50.0			Int	ersection	LOS: D
Intersection Capacity Utili	zation 78.1%			IC	U Level o	f Service D
Analysis Period (min) 15						
•			5 .			
Splits and Phases: 3: V	Veber Road &	Malabar	Road			
<b>↑</b> ø2			ÿ3		<b>→</b> ø	4
30 s		1	5 s		45 s	
		·	₩ ø8			
		60	) s			

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ች	f)		ሻ	f)			4			ર્ન	7
Volume (vph)	43	796	84	45	493	15	93	11	84	31	9	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	295		0	295		0	0		0	0		140
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1736	1797	0	1736	1820	0	0	1715	0	0	1830	1615
Flt Permitted	0.253			0.134				0.976			0.963	
Satd. Flow (perm)	462	1797	0	245	1820	0	0	1715	0	0	1830	1615
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5			2			36				98
Link Speed (mph)		55			55			30			30	
Link Distance (ft)		5235			2414			1424			1334	
Travel Time (s)		64.9			29.9			32.4			30.3	
Confl. Peds. (#/hr)			1	1								
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	2%	11%	0%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	47	956	0	49	552	0	0	204	0	0	44	41
Turn Type	pm+pt	NA		pm+pt	NA		Split	NA		Split	NA	Perm
Protected Phases	5	2		1	6		. 8	8		4	4	
Permitted Phases	2			6								4
Detector Phase	5	2		1	6		8	8		4	4	4
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	8.0	20.0		8.0	20.0		20.0	20.0		20.0	20.0	20.0
Total Split (s)	15.0	33.0		15.0	33.0		23.0	23.0		29.0	29.0	29.0
Total Split (%)	15.0%	33.0%		15.0%	33.0%		23.0%	23.0%		29.0%	29.0%	29.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5		0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Lost Time (s)	4.0	4.0		4.0	4.0			4.0			4.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	None		None	None		Min	Min		Min	Min	Min
Act Effct Green (s)	33.6	29.8		33.6	29.8			12.1			7.3	7.3
Actuated g/C Ratio	0.50	0.44		0.50	0.44			0.18			0.11	0.11
v/c Ratio	0.13	1.20		0.18	0.69			0.61			0.22	0.16
Control Delay	9.9	126.6		10.6	24.2			29.9			33.7	1.3
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay	9.9	126.6		10.6	24.2			29.9			33.7	1.3
LOS	A	F		В	C			C			C	A
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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		121.2			23.1			29.9			18.1	
Approach LOS		F			С			С			В	
Intersection Summary												
Area Type:	Other											
Cycle Length: 100												
Actuated Cycle Length: 6	7.5											
Natural Cycle: 100												
Control Type: Actuated-L	<b>Incoordinated</b>											
Maximum v/c Ratio: 1.20												
Intersection Signal Delay	r: 75.6			In	tersection	n LOS: E						
Intersection Capacity Util	lization 71.2%			IC	CU Level	of Service	e C					
Analysis Period (min) 15												
Splits and Phases: 4: (	Corey Road &	Malabar	Road									
<b>√</b> ø1	<u></u> ₩ ₩ ₩ ₩ ₩				<b>4</b> \ <sub>ø4</sub>				-1,	<b>18</b>		
15 s 33 s	;				29 s				23 s			

Intersection													
Int Delay, s/veh	1												
Movement	EBL	EBT	EBR	WBL	WBT	WBR		NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	9	872	10	16	626	2		3	1	36	3	1	6
Conflicting Peds, #/hr	0	0	0	0	0	0		0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free		Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None		-	-	None	-	-	None
Storage Length	-	-	-	-	-	-		-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-		-	0	-	-	0	-
Grade, %	-	0	-	-	0	-		-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92		92	92	92	92	92	92
Heavy Vehicles, %	4	4	4	4	4	4		0	0	0	0	0	0
Mvmt Flow	10	948	11	17	680	2		3	1	39	3	1	7
Major/Minor	Major1			Major2			N	Minor1			Minor2		
Conflicting Flow All	683	0	0	959	0	0		1693	1690	953	1709	1694	682
Stage 1	-	-	-	-	-	-		973	973	-	716	716	-
Stage 2	-	-	-	-	-	-		720	717	-	993	978	_
Critical Hdwy	4.14	-	-	4.14	-			7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-		6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-			6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.236	-	-	2.236	-	-		3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	901	-	-	709	-	-		74	94	317	73	94	453
Stage 1	-	-	-	-	-	-		306	333	-	424	437	-
Stage 2	-	-	-	-	-	-		422	437	-	298	331	-
Platoon blocked, %		-	-		-	-							
Mov Cap-1 Maneuver	901	-	-	709	-	-		69	88	317	60	88	453
Mov Cap-2 Maneuver	-	-	-	-	-	-		69	88	-	60	88	-
Stage 1	-	-	-	-	-	-		299	325	-	414	420	-
Stage 2	-	-	-	-	-	-		399	420	-	254	323	-
Approach	EB			WB				NB			SB		
HCM Control Delay, s	0.1			0.3				23.5			34.2		
HCM LOS								С			D		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR WBL	WBT	WBR	SBLn1						
Capacity (veh/h)	238	901	-	- 709	-	-	134						
HCM Lane V/C Ratio	0.183		-	- 0.025	-	-	0.081						
HCM Control Delay (s)	23.5	9	0	- 10.2	0	-	34.2						
HCM Lane LOS	С	Α	A	- B	A	-	D						
HCM 95th %tile Q(veh)	0.7	0	-	- 0.1	-	-	0.3						

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Lane Group	EBL2	EBL	EBR	SBL	SBR	SEL	SET	SER	NWL	NWT	NWR	
Lane Configurations	ň		7				<b>†</b> †	7	7	<b></b>	7	
Volume (vph)	631	0	225	0	0	0	926	465	211	93	833	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	
Grade (%)		0%		0%			0%			0%		
Storage Length (ft)		0	100	0	0	0		185	570		0	
Storage Lanes		1	1	0	0	0		1	1		1	
Taper Length (ft)		25		25		25			25			
Satd. Flow (prot)	1736	0	1553	0	0	0	3374	1509	1687	1776	1509	
Flt Permitted	0.950								0.151			
Satd. Flow (perm)	1736	0	1553	0	0	0	3374	1474	268	1776	1509	
Right Turn on Red			Yes					Yes			Yes	
Satd. Flow (RTOR)			306					454			905	
Link Speed (mph)		30		30			45			45		
Link Distance (ft)		3209		245			551			747		
Travel Time (s)		72.9		5.6			8.3			11.3		
Confl. Peds. (#/hr)								2				
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Heavy Vehicles (%)	4%	0%	4%	0%	0%	0%	7%	7%	7%	7%	7%	
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	
Parking (#/hr)												
Mid-Block Traffic (%)		0%		0%			0%			0%		
Shared Lane Traffic (%)												
Lane Group Flow (vph)	686	0	245	0	0	0	1007	505	229	101	905	
Turn Type	Prot		Prot				NA	Perm	D.P+P	NA	custom	
Protected Phases	4		4				2		1	21	Free	
Permitted Phases			4					2	2			
Detector Phase	4		4				2	2	1	21		
Switch Phase												
Minimum Initial (s)	10.0		10.0				15.0	15.0	10.0			
Minimum Split (s)	21.5		21.5				23.0	23.0	15.5			
Total Split (s)	41.0		41.0				33.5	33.5	15.5			
Total Split (%)	45.6%		45.6%				37.2%	37.2%	17.2%			
Yellow Time (s)	4.0		4.0				5.0	5.0	4.0			
All-Red Time (s)	1.5		1.5				2.0	2.0	1.5			
Lost Time Adjust (s)	0.0		0.0				0.0	0.0	0.0			
Total Lost Time (s)	5.5		5.5				7.0	7.0	5.5			
Lead/Lag							Lag	Lag	Lead			
Lead-Lag Optimize?							Yes	Yes	Yes			
Recall Mode	None		None				Min	Min	None			
Act Effct Green (s)	35.5		35.5				26.5	26.5	38.0	42.0	90.0	
Actuated g/C Ratio	0.39		0.39				0.29	0.29	0.42	0.47	1.00	
v/c Ratio	1.00		0.31				1.01	0.67	0.85	0.12	0.60	
Control Delay	64.2		1.9				65.0	9.1	47.3	14.1	1.8	
Queue Delay	0.0		0.0				0.0	0.0	0.0	0.0	0.0	
Total Delay	64.2		1.9				65.0	9.1	47.3	14.1	1.8	
LOS	Е		Α				Е	А	D	В	Α	

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Lane Group	EBL2	EBL	EBR	SBL	SBR	SEL	SET	SER	NWL	NWT	NWR	
Approach Delay							46.3			11.2		
Approach LOS							D			В		
Intersection Summary												
Area Type:	Other											
Cycle Length: 90												
Actuated Cycle Length: 90												
Natural Cycle: 90												
Control Type: Actuated-Unc	oordinated											
Maximum v/c Ratio: 1.01												
Intersection Signal Delay: 3-	4.9			Int	tersection	LOS: C						
Intersection Capacity Utiliza	tion 86.0%			IC	U Level c	of Service	E					
Analysis Period (min) 15												
Splits and Phases: 6: US	1 & Malaba	r Road										
<b>★</b> <sub>ø1</sub>	Nø2					<b>₹</b> ø4						
15.5 s 33.	5 s					41 s						

## Arterial Level of Service: EB Malabar Road

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
Weber Road	II	42	98.7	77.9	176.6	1.14	23.2	С
Corey Road		55	64.9	126.6	191.5	0.99	18.6	D
US 1	lì	35	170.0	1.9	171.9	1.65	34.6	В
Total	II .		333.6	206.4	540.0	3 78	25.2	C

## Arterial Level of Service: WB Malabar Road

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
Corey Road	II	40	149.8	24.2	174.0	1.65	34.2	В
Weber Road	II	55	64.9	9.2	74.1	0.99	48.2	Α
Total	II		214.7	33.4	248.1	2.64	38.4	А

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Int Delay, s/veh	Intersection										
Movement		3.4									
Vol. veh/h         69         741         1035         13         8         141           Conflicting Peds, #/hr         0         0         0         2         0         0           Sign Control         Free         Free         Free         Free         Free         Stop         Stop           RT Channelized         - None         - None         - None         - None         - None           Storage Length         200         - 160         0         0         0         0           Veh in Median Storage, #         - 0         0         - 0         - 0         - 0         0         - 0         - 0         - 0         - 0         - 0         - 0         - 0         - 0         - 0         - 0         - 0         - 0         - 2         92 <t< td=""><td><b>.</b></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	<b>.</b>										
Vol, veh/h         69         741         1035         13         8         141           Conflicting Peds, #/hr         0         0         0         2         0         0           Sign Control         Free         Free         Free         Free         Free         Stop         Stop           RT Channelized         - None         - None         - None         - None         - None           Storage Length         200         - 160         0         0         0         0           Veh in Median Storage, #         - 0         0         - 0         - 0         - 0         0         - 0         0         - 0         - 0         - 0         - 0         - 0         - 0         - 0         - 0         - 0         - 2         9	Movement	FBI	EBT				WBT	WBR	SI	3L	SBR
Conflicting Peds, #/hr   O   O   O   O   O   O   O   O   O											
Sign Control         Free         Free         Free         Free         Free         Stop         Stop           RT Channelized         - None         - None         - None         0         None         Non											
RT Channelized									Sto		
Storage Length   200   -   -   160   0   0										•	
Veh in Median Storage, #         -         0         0         -         1         -         Grade, %         -         0         0         -         0         -         0         -         0         -         0         -         0         -         0         -         0         -         0         -         0         -         0         -         0         -         0         3         Mwnor2         Minor2	Storage Length	200					-			0	
Peak Hour Factor         92         95         5         6         6         4         6.23         23         93         93         93         94         94         94         94         94         94         94         94         94         94         94         94		# -	0				0	-		1	-
Heavy Vehicles, %	Grade, %	-	0				0	-		0	-
Mymit Flow         75         805         1125         14         9         153           Major/Minor         Major1         Major2         Minor2           Conflicting Flow All         1125         0         -         0         2080         1125           Stage 1         -         -         -         -         1125         -           Stage 2         -         -         -         955         -           Critical Hdwy         4.14         -         -         -         6.4         6.23           Critical Hdwy Stg 1         -         -         -         5.4         -         -           Critical Hdwy Stg 2         -         -         -         5.4         -         -           Critical Hdwy Stg 1         -         -         -         5.4         -	Peak Hour Factor	92	92				92	92		92	92
Major/Minor         Major1         Major2         Minor2           Conflicting Flow All         1125         0         -         0         2080         1125           Stage 1         -         -         -         1125         -           Stage 2         -         -         -         955         -           Critical Hdwy         4.14         -         -         6.4         6.23           Critical Hdwy Stg 1         -         -         5.4         -           Critical Hdwy Stg 2         -         -         5.4         -           Follow-up Hdwy         2.236         -         -         3.5         3.327           Pot Cap-1 Maneuver         614         -         -         -         59         248           Stage 1         -         -         -         -         52         248	Heavy Vehicles, %	4	4				4	4		0	3
Conflicting Flow All       1125       0       -       0       2080       1125         Stage 1       -       -       -       -       1125       -         Stage 2       -       -       -       -       955       -         Critical Hdwy       4.14       -       -       -       6.4       6.23         Critical Hdwy Stg 1       -       -       -       -       5.4       -         Critical Hdwy Stg 2       -       -       -       -       5.4       -         Critical Hdwy Stg 2       -       -       -       -       5.4       -         Critical Hdwy Stg 1       -       -       -       5.4       -       -         Critical Hdwy Stg 2       -       -       -       5.4       -       -       -       5.4       -       -       -       5.4       -       -       -       5.4       -       -       -       5.4       -       -       -       5.4       -       -       -       3.5       3.327       -       -       248       -       -       -       377       -       -       -       377       -       -	Mvmt Flow	75	805				1125	14		9	153
Conflicting Flow All         1125         0         -         0         2080         1125           Stage 1         -         -         -         -         1125         -           Stage 2         -         -         -         -         955         -           Critical Hdwy         4.14         -         -         -         6.4         6.23           Critical Hdwy Stg 1         -         -         -         5.4         -         -           Critical Hdwy Stg 2         -         -         -         5.4         -         -           Critical Hdwy Stg 2         -         -         -         5.4         -         -           Critical Hdwy Stg 2         -         -         -         5.4         -         -         -         5.4         -         -         -         5.4         -         -         -         5.4         -         -         -         5.4         -         -         -         3.5         3.327         Pot         6.1         -         -         3.1         -         -         3.13         -         -         -         3.7         -         -         -         3.7											
Conflicting Flow All	Maior/Minor	Maior1					Major2		Mino	r2	
Stage 1       -       -       1125       -         Stage 2       -       -       955       -         Critical Hdwy       4.14       -       -       6.4       6.23         Critical Hdwy Stg 1       -       -       5.4       -         Critical Hdwy Stg 2       -       -       5.4       -         Follow-up Hdwy       2.236       -       -       3.5       3.327         Pot Cap-1 Maneuver       614       -       -       59       248         Stage 1       -       -       -       313       -         Stage 2       -       -       -       377       -         Platoon blocked, %       -       -       -       377       -         Mov Cap-1 Maneuver       614       -       -       52       248         Mov Cap-2 Maneuver       -       -       -       171       -         Stage 1       -       -       -       313       -         Stage 2       -       -       -       331       -         Approach       EB       WB       SB         HCM Control Delay, s       1       0       39.8 <td></td> <td></td> <td>0</td> <td></td> <td></td> <td></td> <td>-</td> <td>0</td> <td></td> <td></td> <td>1125</td>			0				-	0			1125
Stage 2       -       -       955       -         Critical Hdwy       4.14       -       -       6.4       6.23         Critical Hdwy Stg 1       -       -       5.4       -         Critical Hdwy Stg 2       -       -       5.4       -         Follow-up Hdwy       2.236       -       -       3.5       3.327         Pot Cap-1 Maneuver       614       -       -       59       248         Stage 1       -       -       313       -       -       313       -       -       248       -       313       -       -       -       248       -       -       377       -       -       -       -       377       -							_				-
Critical Hdwy       4.14       -       -       6.4       6.23         Critical Hdwy Stg 1       -       -       5.4       -         Critical Hdwy Stg 2       -       -       5.4       -         Follow-up Hdwy       2.236       -       -       3.5       3.327         Pot Cap-1 Maneuver       614       -       -       59       248         Stage 1       -       -       -       313       -         Stage 2       -       -       -       377       -         Platoon blocked, %       -       -       -       52       248         Mov Cap-1 Maneuver       614       -       -       52       248         Mov Cap-2 Maneuver       -       -       -       171       -         Stage 1       -       -       -       313       -         Stage 2       -       -       -       313       -         Approach       EB       WB       SB         HCM Control Delay, s       1       0       39.8         HCM LOS       E       E     Minor Lane/Major Mvmt  EBL EBT WBT WBR SBLn1 SBLn2  Capacity (veh/h)  614  614  615  617  618  619  619  619  619			-				-	-			_
Critical Hdwy Stg 1       -       -       5.4       -         Critical Hdwy Stg 2       -       -       5.4       -         Follow-up Hdwy       2.236       -       -       3.5       3.327         Pot Cap-1 Maneuver       614       -       -       59       248         Stage 1       -       -       -       377       -         Stage 2       -       -       -       377       -         Platoon blocked, %       -       -       -       52       248         Mov Cap-1 Maneuver       614       -       -       52       248         Mov Cap-2 Maneuver       -       -       -       171       -         Stage 1       -       -       -       313       -         Stage 2       -       -       -       313       -         Approach       EB       WB       SB         HCM Control Delay, s       1       0       39.8         HCM LOS       E     Minor Lane/Major Mvmt  EBL EBT WBT WBR SBLn1 SBLn2  Capacity (veh/h)  614  171  248  HCM Lane V/C Ratio  0.122  0.051  0.618  HCM Control Delay (s)  11.7  - 27.2  40.5  HCM Lane LOS  B       -       -       -       -		4.14	-				_	_			6.23
Critical Hdwy Stg 2         -         -         5.4         -           Follow-up Hdwy         2.236         -         -         3.5         3.327           Pot Cap-1 Maneuver         614         -         -         -         59         248           Stage 1         -         -         -         313         -           Stage 2         -         -         -         377         -           Platoon blocked, %         -         -         -         -         377         -           Mov Cap-1 Maneuver         614         -         -         -         52         248           Mov Cap-2 Maneuver         -         -         -         171         -           Stage 1         -         -         -         313         -           Stage 2         -         -         -         313         -           Stage 2         -         -         -         331         -           Approach         EB         WB         SB         -           HCM Control Delay, s         1         0         39.8           HCM Control Delay (web/h)         614         -         -         171			-				-	-			
Follow-up Hdwy 2.236 3.5 3.327  Pot Cap-1 Maneuver 614 59 248  Stage 1 313 - 313 - 314  Stage 2 377 377 7  Platoon blocked, % 52 248  Mov Cap-1 Maneuver 614 52 248  Mov Cap-2 Maneuver 52 248  Mov Cap-2 Maneuver 171 313 - 313 - 313 - 314  Stage 1 313 - 313 - 314  Stage 2 313 - 514  Approach EB WB SB  HCM Control Delay, s 1 0 39.8  HCM LOS E  Minor Lane/Major Mvmt EBL EBT WBT WBR SBLn1 SBLn2  Capacity (veh/h) 614 171 248  HCM Lane V/C Ratio 0.122 - 0.051 0.618  HCM Control Delay (s) 11.7 - 27.2 40.5  HCM Lane LOS B - D E		-	-				-	-			-
Pot Cap-1 Maneuver         614         -         -         59         248           Stage 1         -         -         -         313         -           Stage 2         -         -         -         377         -           Plation blocked, %         -		2.236	-				-	-			3.327
Stage 1       -       -       313       -         Stage 2       -       -       377       -         Platoon blocked, %       -       -       -       -         Mov Cap-1 Maneuver       614       -       -       -       52       248         Mov Cap-2 Maneuver       -       -       -       171       -         Stage 1       -       -       -       313       -         Stage 2       -       -       -       331       -         Approach       EB       WB       SB         HCM Control Delay, s       1       0       39.8         HCM LOS       E     Minor Lane/Major Mvmt  EBL  EBT  WBT  WBR SBLn1 SBLn2  Capacity (veh/h)  614  171  248  HCM Lane V/C Ratio  0.122  0.051  0.618  HCM Control Delay (s)  11.7  - 27.2  40.5  HCM Lane LOS  B  D  E			-				-	-			
Stage 2		-	-				-	-	3	13	-
Platoon blocked, %	Stage 2	-	-				-	-	3	77	-
Mov Cap-2 Maneuver         -         -         171         -           Stage 1         -         -         -         313         -           Stage 2         -         -         -         331         -           Approach         EB         WB         SB           HCM Control Delay, s         1         0         39.8           HCM LOS         E    Minor Lane/Major Mvmt  EBL  EBT  WBT  WBR SBLn1 SBLn2  Capacity (veh/h)  614  171  248  HCM Lane V/C Ratio  0.122  0.051  0.618  HCM Control Delay (s)  11.7  27.2  40.5  HCM Lane LOS  B  D  E	Platoon blocked, %		-				-	-			
Stage 1       -       -       313       -         Stage 2       -       -       331       -         Approach       EB       WB       SB         HCM Control Delay, s       1       0       39.8         HCM LOS       E            Minor Lane/Major Mvmt       EBL       EBT       WBT       WBR SBLn1 SBLn2         Capacity (veh/h)       614       -       -       171       248         HCM Lane V/C Ratio       0.122       -       -       0.051       0.618         HCM Control Delay (s)       11.7       -       -       27.2       40.5         HCM Lane LOS       B       -       -       D       E		614	-				-	-			248
Stage 2		-	-				-	-			-
Approach         EB         WB         SB           HCM Control Delay, s         1         0         39.8           HCM LOS         E             Minor Lane/Major Mvmt         EBL         EBT         WBT         WBR SBLn1 SBLn2           Capacity (veh/h)         614         -         -         171         248           HCM Lane V/C Ratio         0.122         -         -         0.051         0.618           HCM Control Delay (s)         11.7         -         -         27.2         40.5           HCM Lane LOS         B         -         -         D         E		-	-				-	-			-
HCM Control Delay, s	Stage 2	-	-				-	-	3:	31	-
HCM Control Delay, s											
HCM Control Delay, s	Approach	EB					WB			SB	
Minor Lane/Major Mvmt         EBL         EBT         WBT         WBR SBLn1 SBLn2           Capacity (veh/h)         614         -         -         171         248           HCM Lane V/C Ratio         0.122         -         -         0.051         0.618           HCM Control Delay (s)         11.7         -         -         27.2         40.5           HCM Lane LOS         B         -         -         D         E											
Minor Lane/Major Mvmt         EBL         EBT         WBT         WBR SBLn1 SBLn2           Capacity (veh/h)         614         -         -         171         248           HCM Lane V/C Ratio         0.122         -         -         0.051         0.618           HCM Control Delay (s)         11.7         -         -         27.2         40.5           HCM Lane LOS         B         -         -         D         E											
Capacity (veh/h) 614 171 248  HCM Lane V/C Ratio 0.122 0.051 0.618  HCM Control Delay (s) 11.7 27.2 40.5  HCM Lane LOS B - D E											
Capacity (veh/h) 614 171 248  HCM Lane V/C Ratio 0.122 0.051 0.618  HCM Control Delay (s) 11.7 27.2 40.5  HCM Lane LOS B - D E	Minor Lane/Maior Mymt	FBI	EBT	WBT	WBR S	BLn1	SBL n2				
HCM Lane V/C Ratio       0.122       -       -       0.051       0.618         HCM Control Delay (s)       11.7       -       -       27.2       40.5         HCM Lane LOS       B       -       -       D       E											
HCM Control Delay (s) 11.7 27.2 40.5 HCM Lane LOS B D E											
HCM Lane LOS B D E											
HCM 95th %tile Q(veh) 0.4 0.2 3.7	HCM 95th %tile Q(veh)	0.4				0.2					

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Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	7		ሻ	<u>₩</u>	¥	
Volume (vph)	569	175	40	901	133	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%	12	12	0%	0%	12
Storage Length (ft)	070	0	255	070	0	0
Storage Lanes		0	1		1	0
Taper Length (ft)		U	25		25	U
Satd. Flow (prot)	1768	0	1736	1827	1763	0
Flt Permitted	1700	U	0.186	1027	0.962	U
Satd. Flow (perm)	1768	0	340	1827	1763	0
Right Turn on Red	1700	Yes	340	1027	1703	Yes
	14	162			10	162
Satd. Flow (RTOR)	16			ГГ	18	
Link Speed (mph)	45			55	30	
Link Distance (ft)	2095			5235	1845	
Travel Time (s)	31.7			64.9	41.9	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)			_	_		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	4%	4%	4%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	808	0	43	979	183	0
Turn Type	NA		pm+pt	NA	Prot	
Protected Phases	4		3	8	2	
Permitted Phases	•		8			
Detector Phase	4		3	8	2	
Switch Phase	7		- 3	- 0		
Minimum Initial (s)	4.0		4.0	4.0	4.0	
Minimum Split (s)	20.0		8.0	20.0	20.0	
Total Split (s)	24.0		23.0	47.0	43.0	
Total Split (%)	26.7%		25.6%	52.2%	47.8%	
Yellow Time (s)	3.5		3.5	3.5	3.5	
All-Red Time (s)	0.5		0.5	0.5	0.5	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	4.0		4.0	4.0	4.0	
Lead/Lag	Lag		Lead			
Lead-Lag Optimize?	Yes		Yes			
Recall Mode	None		None	None	Min	
Act Effct Green (s)	39.1		43.1	43.1	11.1	
Actuated g/C Ratio	0.63		0.69	0.69	0.18	
v/c Ratio	0.72		0.12	0.77	0.56	
Control Delay	16.5		4.4	13.1	27.6	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	16.5		4.4	13.1	27.6	
LOS	В		A	В	C C	
LUJ	D		Α	D	C	

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Lane Group	EBT	EBR	WBL	WBT	NBL	NBR		
Approach Delay	16.5			12.7	27.6			
Approach LOS	В			В	С			
Intersection Summary								
Area Type:	Other							
Cycle Length: 90								
Actuated Cycle Length:	62.2							
Natural Cycle: 60								
Control Type: Actuated	-Uncoordinated							
Maximum v/c Ratio: 0.7	7							
Intersection Signal Dela	ay: 15.6			In	tersection	LOS: B		
Intersection Capacity U	tilization 63.6%			IC	CU Level o	of Service B		
Analysis Period (min) 1	5							
Splits and Phases: 3	: Weber Road &	Malabar	Road					
<b>♦</b> ø2					<b>√</b> ø3		<b>→</b> ø4	
43 s					23 s		24 s	
					₩ ø8			
				l	47 s			

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ች	f)		ሻ	f)			4			ર્ન	7
Volume (vph)	25	537	112	51	825	35	52	4	31	38	12	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	295		0	295		0	0		0	0		140
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1736	1772	0	1736	1816	0	0	1728	0	0	1830	1615
Flt Permitted	0.133			0.160				0.971			0.963	
Satd. Flow (perm)	243	1772	0	292	1816	0	0	1728	0	0	1830	1615
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11			2			28				98
Link Speed (mph)		55			55			30			30	
Link Distance (ft)		5235			2414			1424			1334	
Travel Time (s)		64.9			29.9			32.4			30.3	
Confl. Peds. (#/hr)			1	1								
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	2%	11%	0%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	27	706	0	55	935	0	0	95	0	0	54	38
Turn Type	pm+pt	NA		pm+pt	NA		Split	NA		Split	NA	Perm
Protected Phases	5	2		1	6		. 8	8		4	4	
Permitted Phases	2			6								4
Detector Phase	5	2		1	6		8	8		4	4	4
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	8.0	20.0		8.0	20.0		20.0	20.0		20.0	20.0	20.0
Total Split (s)	8.0	33.0		8.0	33.0		33.0	33.0		26.0	26.0	26.0
Total Split (%)	8.0%	33.0%		8.0%	33.0%		33.0%	33.0%		26.0%	26.0%	26.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5		0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Lost Time (s)	4.0	4.0		4.0	4.0			4.0			4.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	None		None	None		Min	Min		Min	Min	Min
Act Effct Green (s)	31.6	29.4		32.4	30.9			8.0			7.3	7.3
Actuated g/C Ratio	0.52	0.48		0.53	0.50			0.13			0.12	0.12
v/c Ratio	0.12	0.83		0.22	1.02			0.38			0.25	0.14
Control Delay	8.4	26.8		9.3	55.5			24.3			29.2	1.0
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay	8.4	26.8		9.3	55.5			24.3			29.2	1.0
LOS	A	C		A	E			C			C	A
	- ' '			- ' '								

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		26.1			53.0			24.3			17.6	
Approach LOS		С			D			С			В	
Intersection Summary												
Area Type:	Other											
Cycle Length: 100												
Actuated Cycle Length: 6	1.3											
Natural Cycle: 100												
Control Type: Actuated-U	Incoordinated											
Maximum v/c Ratio: 1.02												
Intersection Signal Delay	: 39.5			In	tersection	ո LOS։ D						
Intersection Capacity Util	ization 63.9%			IC	U Level	of Service	B					
Analysis Period (min) 15												
Splits and Phases: 4: 0	Corey Road &	Malabar	Road									
<b>√</b> ø1 ♣ø2	<i>,</i>			<b>∜</b> \ <sub>ø4</sub>				<b>↑</b> † <sub>ø8</sub>				
8 s 33 s				26 s			3	3 s				
A .					•			_			•	

Intersection												
Int Delay, s/veh	1											
in Bolay, or von	,											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NI	BL NB	T NBR	SBL	SBT	SBR
Vol, veh/h	1	589	1	25	951	7		9	1 19	1	3	8
Conflicting Peds, #/hr	0	0	0	0		0			0 0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	St	p Sto	o Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None		-	- None	-	-	None
Storage Length	-	-	-	-	-	-		-		-	-	-
Veh in Median Storage, #	-	0	-	-	0	-		-	0 -	-	0	-
Grade, %	-	0	-	-	0	-		-	0 -	-	0	-
Peak Hour Factor	92	92	92	92	92	92		92 9	2 92	92	92	92
Heavy Vehicles, %	4	4	4	4	4	4		0	5	0	0	0
Mvmt Flow	1	640	1	27	1034	8		10	1 21	1	3	9
Major/Minor	Major1			Major2			Mino	r1		Minor2		
Conflicting Flow All	1041	0	0	641	0	0	17-	11 173	9 641	1746	1735	1038
Stage 1	-	-	-	-	-	-	6	13 64	3 -	1092	1092	-
Stage 2	-	-	-	-	-	-	10	98 109	6 -	654	643	-
Critical Hdwy	4.14	-	-	4.14	-	-	7	.1 6.	5 6.25	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6	.1 5.	5 -	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6	.1 5.	5 -	6.1	5.5	-
Follow-up Hdwy	2.236	-	-	2.236	-	-	3	.5	4 3.345	3.5	4	3.3
Pot Cap-1 Maneuver	660	-	-	934	-	-		59 8	8 469	68	89	283
Stage 1	-	-	-	-	-	-	4	55 47	2 -	262	293	-
Stage 2	-	-	-	-	-	-	2	0 29	2 -	459	472	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	660	-	-	934	-	-		51 8	2 469	61	83	283
Mov Cap-2 Maneuver	-	-	-	-	-	-		51 8	2 -	61	83	-
Stage 1	-	-	-	-	-	-	4			261	273	-
Stage 2	-	-	-	-	-	-	2	32 27	2 -	437	471	-
Approach	EB			WB			<u> </u>	IB		SB		
HCM Control Delay, s	0			0.2			36	.6		31.5		
HCM LOS								E		D		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR WBL	WBT	WBR S	SBLn1					
Capacity (veh/h)	145	660	-	- 934	-	-	149					
HCM Lane V/C Ratio	0.217		-	- 0.029		-	0.088					
HCM Control Delay (s)	36.6	10.5	0	- 9		-	31.5					
HCM Lane LOS	Е	В	A	- A		-	D					
HCM 95th %tile Q(veh)	0.8	0	-	- 0.1		-	0.3					

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Lane Group	EBL2	EBL	EBR	SBL	SBR	SEL	SET	SER	NWL	NWT	NWR	
Lane Configurations	ሻ		7				<b>^</b>	7	ሻ	<b>^</b>	7	
Volume (vph)	362	0	192	0	0	0	968	665	341	70	631	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	
Grade (%)		0%		0%			0%			0%		
Storage Length (ft)		0	100	0	0	0		185	570		0	
Storage Lanes		1	1	0	0	0		1	1		1	
Taper Length (ft)		25		25		25			25			
Satd. Flow (prot)	1736	0	1553	0	0	0	3374	1509	1687	1776	1509	
Flt Permitted	0.950								0.143			
Satd. Flow (perm)	1736	0	1553	0	0	0	3374	1475	254	1776	1509	
Right Turn on Red			Yes					Yes			Yes	
Satd. Flow (RTOR)			384					685			686	
Link Speed (mph)		30		30			45			45		
Link Distance (ft)		3209		245			551			747		
Travel Time (s)		72.9		5.6			8.3			11.3		
Confl. Peds. (#/hr)								2				
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Heavy Vehicles (%)	4%	0%	4%	0%	0%	0%	7%	7%	7%	7%	7%	
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	
Parking (#/hr)	J	•		J	· ·		J	J	J	· ·		
Mid-Block Traffic (%)		0%		0%			0%			0%		
Shared Lane Traffic (%)		0,0		0,0			0,70			070		
Lane Group Flow (vph)	393	0	209	0	0	0	1052	723	371	76	686	
Turn Type	Prot	· ·	Prot	J	· ·		NA	Perm	D.P+P	NA	custom	
Protected Phases	4		4				2	1 01111	1	21	Free	
Permitted Phases	•		4				_	2	2		1100	
Detector Phase	4		4				2	2	1	21		
Switch Phase	•		•				_	_	•			
Minimum Initial (s)	10.0		10.0				15.0	15.0	10.0			
Minimum Split (s)	21.5		21.5				23.0	23.0	15.5			
Total Split (s)	25.0		25.0				35.0	35.0	20.0			
Total Split (%)	31.3%		31.3%				43.8%	43.8%	25.0%			
Yellow Time (s)	4.0		4.0				5.0	5.0	4.0			
All-Red Time (s)	1.5		1.5				2.0	2.0	1.5			
Lost Time Adjust (s)	0.0		0.0				0.0	0.0	0.0			
Total Lost Time (s)	5.5		5.5				7.0	7.0	5.5			
Lead/Lag	5.5		0.0				Lag	Lag	Lead			
Lead-Lag Optimize?							Yes	Yes	Yes			
Recall Mode	None		None				Min	Min	None			
Act Effct Green (s)	19.4		19.4				28.0	28.0	44.0	48.0	79.9	
Actuated g/C Ratio	0.24		0.24				0.35	0.35	0.55	0.60	1.00	
v/c Ratio	0.24		0.24				0.33	0.33	0.93	0.00	0.45	
Control Delay	61.6		1.2				35.8	8.3	52.0	6.9	1.0	
3	0.0		0.0				0.0	0.0	0.0	0.9	0.0	
Queue Delay	61.6		1.2				35.8	8.3	52.0	6.9	1.0	
Total Delay												
LOS	E		Α				D	Α	D	Α	А	

	<b>*</b>	ၨ	¬₄	Ļ	4	•	×	4	•	×	*	
Lane Group	EBL2	EBL	EBR	SBL	SBR	SEL	SET	SER	NWL	NWT	NWR	
Approach Delay							24.6			18.1		
Approach LOS							С			В		
Intersection Summary												
Area Type:	Other											
Cycle Length: 80												
Actuated Cycle Length: 79.9	)											
Natural Cycle: 80												
Control Type: Actuated-Unc	oordinated											
Maximum v/c Ratio: 0.93												
Intersection Signal Delay: 25	5.2			Int	ersection	LOS: C						
Intersection Capacity Utiliza	tion 79.5%			IC	U Level c	of Service	D					
Analysis Period (min) 15												
Splits and Phases: 6: US	1 & Malaba	r Road										
<b>★</b> ø1	1	ø2						<b>1</b> ø4	ļ			
20 s	35 s							25 s				

## Arterial Level of Service: EB Malabar Road

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
Weber Road	II	42	98.7	16.5	115.2	1.14	35.6	А
Corey Road	II	55	64.9	26.8	91.7	0.99	38.9	А
US 1		35	170.0	1.2	171.2	1.65	34.8	В
Total	11		333.6	44 5	378 1	3 78	36.0	Α

## Arterial Level of Service: WB Malabar Road

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
Corey Road	II	40	149.8	55.5	205.3	1.65	29.0	В
Weber Road		55	64.9	13.1	78.0	0.99	45.8	Α
Total	II		214.7	68.6	283.3	2.64	33.6	В

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~: Volume exceeds capacity

Intersection										
Int Delay, s/veh	2									
	_									
Movement	EBL	EBT			WBT	WBR	CI	BL	SBR	
Movement										
Vol, veh/h	130	1378			1158	20		15	80	
Conflicting Peds, #/hr	0	0			0	2	Cı	0	0	
Sign Control	Free	Free			Free	Free	St	top	Stop	
RT Channelized		None			-	None		-	None	
Storage Length	200	-			-	160		0	0	
Veh in Median Storage, #	-	0			0	-		1	-	
Grade, %	-	0 92			0	-		0	-	
Peak Hour Factor	92 4	92 4			92 4	92		92	92	
Heavy Vehicles, %						4		0	5	
Mvmt Flow	141	1498			1259	22		16	87	
Major/Minor	Major1				Major2		Mino	or2		
Conflicting Flow All	1259	0			-	0	30	39	1259	
Stage 1	-	-			-	-	12	59	-	
Stage 2	-	-			-	-	17	'80	-	
Critical Hdwy	4.14	-			-	-	$\epsilon$	6.4	6.25	
Critical Hdwy Stg 1	-	-			-	-	5	5.4	-	
Critical Hdwy Stg 2	-	-			-	-	5	5.4	-	
Follow-up Hdwy	2.236	-			-	-		3.5	3.345	
Pot Cap-1 Maneuver	546	-			-	-	~	14	205	
Stage 1	-	-			-	-	2	70	-	
Stage 2	-	-			-	-	1	50	-	
Platoon blocked, %		-			-	-				
Mov Cap-1 Maneuver	546	-			-	-		10	205	
Mov Cap-2 Maneuver	-	-			-	-		76	-	
Stage 1	-	-			-	-		70	-	
Stage 2	-	-			-	-	1	11	-	
Approach	EB				WB			SB		
HCM Control Delay, s	1.2				0			9.6		
HCM LOS	1.2							E		
NA'	EDI	EDT	WDT	WDD CDI	1 CDL 2					
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR SBLn						
Capacity (veh/h)	546	-	-	- 7						
HCM Lane V/C Ratio	0.259	-	-		5 0.424					
HCM Control Delay (s)	13.9	-	-	- 64.						
HCM Lane LOS	В	-	-		F D					
HCM 95th %tile Q(veh)	1	-	-	- 0.	7 2					
Notes										

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+: Computation Not Defined

\*: All major volume in platoon

\$: Delay exceeds 300s

	<b>→</b>	$\rightarrow$	•	<b>←</b>	4	<i>&gt;</i>
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	<b>1</b>	LUIN	VVDL		NDL W	NOIL
Volume (vph)	1081	309	38	<b>7</b> 60	380	97
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	1900	1900	1900	1900	1900	1900
Grade (%)	0%	12	12	0%	0%	12
, ,	0%	0	255	0%		0
Storage Length (ft)		0	255		0	0
Storage Lanes		0	1		1	0
Taper Length (ft)	4770		25	4007	25	
Satd. Flow (prot)	1772	0	1736	1827	1751	0
Flt Permitted			0.072		0.962	
Satd. Flow (perm)	1772	0	132	1827	1751	0
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	21				12	
Link Speed (mph)	45			55	30	
Link Distance (ft)	2095			5235	1845	
Travel Time (s)	31.7			64.9	41.9	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	4%	4%	4%	2%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)	0	U	U	U	U	U
	0%			Λ0/	0%	
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)	1511	0	41	007	F10	0
Lane Group Flow (vph)	1511	0	41	826	518	0
Turn Type	NA		pm+pt	NA	Prot	
Protected Phases	4		3	8	2	
Permitted Phases			8			
Detector Phase	4		3	8	2	
Switch Phase						
Minimum Initial (s)	4.0		4.0	4.0	4.0	
Minimum Split (s)	20.0		8.0	20.0	20.0	
Total Split (s)	55.0		15.0	70.0	30.0	
Total Split (%)	55.0%		15.0%	70.0%	30.0%	
Yellow Time (s)	3.5		3.5	3.5	3.5	
All-Red Time (s)	0.5		0.5	0.5	0.5	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	4.0		4.0	4.0	4.0	
Lead/Lag	Lag		Lead	7.0	٠.٠	
Lead-Lag Optimize?	Yes		Yes			
				None	Min	
Recall Mode	None		None	None	Min	
Act Effct Green (s)	51.2		57.4	57.4	26.1	
Actuated g/C Ratio	0.56		0.63	0.63	0.29	
v/c Ratio	1.51		0.21	0.72	1.02	
Control Delay	256.9		8.8	15.9	79.6	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	256.9		8.8	15.9	79.6	
LOS	F		Α	В	Е	

	-	•	•	←	4	/
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Approach Delay	256.9			15.6	79.6	
Approach LOS	F			В	E	
Intersection Summary						
Area Type:	Other					
Cycle Length: 100						
Actuated Cycle Length:	91.5					
Natural Cycle: 150						
Control Type: Actuated-						
Maximum v/c Ratio: 1.5	1					
Intersection Signal Dela	y: 152.9			In	tersection	LOS: F
Intersection Capacity U		ó		IC	U Level o	of Service H
Analysis Period (min) 1	5					
Splits and Phases: 3:	Weber Road &	Malabar	Road			
<b>↑</b> ø2		1	ø3	-	ø4	
30 s		15 s		55 s		
		1	ø8			
		70 s	00			

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	f)		ሻ	f)			4			ર્ન	7
Volume (vph)	58	991	117	67	701	25	123	13	129	33	11	42
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	295		0	295		0	0		0	0		140
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1736	1793	0	1736	1818	0	0	1709	0	0	1832	1615
Flt Permitted	0.089			0.089				0.977			0.964	
Satd. Flow (perm)	163	1793	0	163	1818	0	0	1709	0	0	1832	1615
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		6			2			39				82
Link Speed (mph)		55			55			30			30	
Link Distance (ft)		5235			2414			1424			1334	
Travel Time (s)		64.9			29.9			32.4			30.3	
Confl. Peds. (#/hr)			1	1								
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	2%	11%	0%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	63	1204	0	73	789	0	0	288	0	0	48	46
Turn Type	pm+pt	NA		pm+pt	NA		Split	NA		Split	NA	Perm
Protected Phases	5	2		1	6		8	8		4	4	
Permitted Phases	2			6								4
Detector Phase	5	2		1	6		8	8		4	4	4
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	8.0	20.0		8.0	20.0		20.0	20.0		20.0	20.0	20.0
Total Split (s)	15.0	48.0		15.0	48.0		36.0	36.0		21.0	21.0	21.0
Total Split (%)	12.5%	40.0%		12.5%	40.0%		30.0%	30.0%		17.5%	17.5%	17.5%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5		0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Lost Time (s)	4.0	4.0		4.0	4.0			4.0			4.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	None		None	None		Min	Min		Min	Min	Min
Act Effct Green (s)	50.7	44.9		51.1	45.1			19.2			8.0	8.0
Actuated g/C Ratio	0.54	0.48		0.55	0.48			0.21			0.09	0.09
v/c Ratio	0.30	1.39		0.34	0.90			0.75			0.31	0.22
Control Delay	14.6	208.9		15.2	40.1			43.7			48.8	5.0
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay	14.6	208.9		15.2	40.1			43.7			48.8	5.0
LOS	14.0 B	200.9 F		15.2 B	40.1 D			43.7 D			40.0 D	3.0 A
LUJ	ט	Г		D	U			U			υ	A

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		199.3			38.0			43.7			27.4	
Approach LOS		F			D			D			С	
Intersection Summary												
Area Type:	Other											
Cycle Length: 120												
Actuated Cycle Length:	93.4											
Natural Cycle: 150												
Control Type: Actuated-	Uncoordinated											
Maximum v/c Ratio: 1.39	9											
Intersection Signal Dela	y: 119.6			In	itersection	n LOS: F						
Intersection Capacity Ut	ilization 88.0%			IC	CU Level	of Service	Ε					
Analysis Period (min) 15												
Splits and Phases: 4:	Corey Road &	Malabar I	Road									
<b>√</b> 01	12				4	ø4		1,	18			
15 e 48 e	-				21	ا بر		36 s	-			

Intersection													
Int Delay, s/veh	2.2												
Movement	EBL	EBT	EBR	WBL	WBT	WBR		NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	11	1095	15	20	796	10		5	1	38	5	4	10
Conflicting Peds, #/hr	0	0	0	0	0	0		0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	(	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None		-	-	None	-	-	None
Storage Length	-	-	-	-	-	-		-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-		-	0	-	-	0	-
Grade, %	-	0	-	-	0	-		-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92		92	92	92	92	92	92
Heavy Vehicles, %	4	4	4	4	4	4		0	0	0	0	0	0
Mvmt Flow	12	1190	16	22	865	11		5	1	41	5	4	11
Major/Minor	Major1			Major2			Miı	nor1			Minor2		
Conflicting Flow All	876	0	0	1207	0	0	2	2144	2142	1198	2157	2144	871
Stage 1	-	-	-	-	-	-	1	222	1222	-	914	914	-
Stage 2	-	-	-	-	-	-		922	920	-	1243	1230	-
Critical Hdwy	4.14	-	-	4.14	-	-		7.1	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-		6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-		6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.236	-	-	2.236	-	-		3.5	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	762	-	-	571	-	-		36	49	228	35	49	353
Stage 1	-	-	-	-	-	-		222	254	-	330	355	-
Stage 2	-	-	-	-	-	-		327	352	-	216	252	-
Platoon blocked, %		-	-		-	-							
Mov Cap-1 Maneuver	762	-	-	571	-	-		29	43	228	26	43	353
Mov Cap-2 Maneuver	-	-	-	-	-	-		29	43	-	26	43	-
Stage 1	-	-	-	-	-	-		211	242	-	314	328	-
Stage 2	-	-	-	-	-	-		289	326	-	168	240	-
Approach	EB			WB				NB			SB		
HCM Control Delay, s	0.1			0.3				53			91.7		
HCM LOS								F			F		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR WBL	WBT	WBR :	SBLn1						
Capacity (veh/h)	121	762	-	- 571	-	-	61						
HCM Lane V/C Ratio		0.016	-	- 0.038	-	-	0.339						
HCM Control Delay (s)	53	9.8	0	- 11.6	0	-	91.7						
HCM Lane LOS	F	Α	A	- B	Α	-	F						
HCM 95th %tile Q(veh)	1.7	0	-	- 0.1	-	-	1.2						

	<b>&gt;</b>	•	-	Ļ	4	•	$\mathbf{x}$	4	*	*	•	
Lane Group	EBL2	EBL	EBR	SBL	SBR	SEL	SET	SER	NWL	NWT	NWR	
Lane Configurations	ň		7				<b>^</b>	7	ň	<b></b>	7	
Volume (vph)	769	0	282	0	0	0	1312	593	262	153	1383	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	
Grade (%)		0%		0%			0%			0%		
Storage Length (ft)		0	100	0	0	0		185	570		0	
Storage Lanes		1	1	0	0	0		1	1		1	
Taper Length (ft)		25		25		25			25			
Satd. Flow (prot)	1736	0	1553	0	0	0	3374	1509	1687	1776	1509	
Flt Permitted	0.950								0.115			
Satd. Flow (perm)	1736	0	1553	0	0	0	3374	1474	204	1776	1509	
Right Turn on Red			Yes					Yes			Yes	
Satd. Flow (RTOR)			274					346			1091	
Link Speed (mph)		30		30			45			45		
Link Distance (ft)		3209		245			551			747		
Travel Time (s)		72.9		5.6			8.3			11.3		
Confl. Peds. (#/hr)								2				
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Heavy Vehicles (%)	4%	0%	4%	0%	0%	0%	7%	7%	7%	7%	7%	
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	
Parking (#/hr)												
Mid-Block Traffic (%)		0%		0%			0%			0%		
Shared Lane Traffic (%)												
Lane Group Flow (vph)	836	0	307	0	0	0	1426	645	285	166	1503	
Turn Type	Prot		Prot				NA	Perm	D.P+P	NA	custom	
Protected Phases	4		4				2		1	21	Free	
Permitted Phases			4					2	2			
Detector Phase	4		4				2	2	1	2 1		
Switch Phase												
Minimum Initial (s)	10.0		10.0				15.0	15.0	10.0			
Minimum Split (s)	21.5		21.5				23.0	23.0	15.5			
Total Split (s)	51.0		51.0				41.9	41.9	17.1			
	46.4%		46.4%				38.1%	38.1%	15.5%			
Yellow Time (s)	4.0		4.0				5.0	5.0	4.0			
All-Red Time (s)	1.5		1.5				2.0	2.0	1.5			
Lost Time Adjust (s)	0.0		0.0				0.0	0.0	0.0			
Total Lost Time (s)	5.5		5.5				7.0	7.0	5.5			
Lead/Lag							Lag	Lag	Lead			
Lead-Lag Optimize?							Yes	Yes	Yes			
Recall Mode	None		None				Min	Min	None			
Act Effct Green (s)	45.5		45.5				34.9	34.9	48.0	52.0	110.0	
Actuated g/C Ratio	0.41		0.41				0.32	0.32	0.44	0.47	1.00	
v/c Ratio	1.16		0.38				1.33	0.92	1.16	0.20	1.00	
Control Delay	120.0		5.2				188.5	36.3	136.7	17.7	25.3	
Queue Delay	0.0		0.0				0.0	0.0	0.0	0.0	0.0	
Total Delay	120.0		5.2				188.5	36.3	136.7	17.7	25.3	
LOS	F		Α				F	D	F	В	С	

	<b>&gt;</b>	ၨ	¬,	Ļ	4	•	×	4	•	$\times$	•
Lane Group	EBL2	EBL	EBR	SBL	SBR	SEL	SET	SER	NWL	NWT	NWR
Approach Delay							141.1			40.9	
Approach LOS							F			D	
Intersection Summary											
Area Type:	Other										
Cycle Length: 110											
Actuated Cycle Length: 110											
Natural Cycle: 150											
Control Type: Actuated-Unc	coordinated										
Maximum v/c Ratio: 1.33											
Intersection Signal Delay: 9	1.8			In	tersection	LOS: F					
Intersection Capacity Utiliza	ition 107.1%	)		IC	U Level c	of Service	G				
Analysis Period (min) 15											
Splits and Phases: 6: US	1 & Malaba	r Road									
<b>★</b> <sub>Ø1</sub>	ø2				Π.	<b>2</b> ø4					
17.1 s 41.9 s	;				5	1 s					

## Arterial Level of Service: EB Malabar Road

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
Weber Road	II	42	98.7	256.9	355.6	1.14	11.5	F
Corey Road	II	55	64.9	208.9	273.8	0.99	13.0	Е
US 1		35	170.0	5.2	175.2	1.65	34.0	В
Total			333.6	471.0	804.6	3.78	16.9	F

## Arterial Level of Service: WB Malabar Road

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
Corey Road	II	40	149.8	40.1	189.9	1.65	31.3	В
Weber Road		55	64.9	15.9	80.8	0.99	44.2	А
Total	II		214.7	56.0	270.7	2.64	35.2	А

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Intersection									
Int Delay, s/veh	7.6								
ini Delay, Siveri	7.0								
N	EDI	CDT			MDT	WDD	CDI	CDD	
Movement	EBL	EBT			WBT	WBR	SBL	SBR	
Vol, veh/h	75	949			1298	20	10	150	
Conflicting Peds, #/hr	0	0			0	2	0	0	
Sign Control	Free	Free			Free	Free	Stop	Stop	
RT Channelized	-	None			-	None	-	None	
Storage Length	200	-			-	160	0	0	
Veh in Median Storage, #		0			0	-	1	-	
Grade, %	-	0			0	-	0	-	
Peak Hour Factor	92	92			92	92	92	92	
Heavy Vehicles, % Mvmt Flow	4	4			1411	4	0	3	
WWITH FIOW	82	1032			1411	22	11	163	
Major/Minor	Major1				Major2		Minor2		
Conflicting Flow All	1411	0			-	0	2606	1411	
Stage 1	-	-			-	-	1411	-	
Stage 2	-	-			-	-	1195	-	
Critical Hdwy	4.14	-			-	-	6.4	6.23	
Critical Hdwy Stg 1	-	-			-	-	5.4	-	
Critical Hdwy Stg 2	-	-			-	-	5.4	-	
Follow-up Hdwy	2.236	-			-	-	3.5	3.327	
Pot Cap-1 Maneuver	477	-			-	-	28	168	
Stage 1	-	-			-	-	228	-	
Stage 2	-	-			-	-	290	-	
Platoon blocked, %		-			-	-			
Mov Cap-1 Maneuver	477	-			-	-	23	168	
Mov Cap-2 Maneuver	-	-			-	-	117	-	
Stage 1	-	-			-	-	228	-	
Stage 2	-	-			-	-	240	-	
Approach	EB				WB		SB		
HCM Control Delay, s	1				0		111.9		
HCM LOS	•						F		
110111 200							•		
Ndiana I ama/Ndaian Nd	ED:	EDT.	WDT	WDD CDL 4	CDI C				
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR SBLn1					
Capacity (veh/h)	477	-	-	- 117					
HCM Lane V/C Ratio	0.171	-	-	- 0.093					
HCM Control Delay (s)	14.1	-	-		116.8				
HCM Lane LOS	В	-	-	- E					
HCM 95th %tile Q(veh)	0.6	-	-	- 0.3	7.5				

	-	•	•	<b>←</b>	4	<i>&gt;</i>
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	1>	LUIN	NDL		₩.	NUIX
Volume (vph)	722	250	60	1106	220	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	1900	1900	1900	1900	1900	1900
Grade (%)	0%	12	12	0%	0%	12
Storage Length (ft)	U 70	0	255	0 70	0 / 0	0
Storage Lanes		0	255		1	0
Taper Length (ft)		U	25		25	U
Satd. Flow (prot)	1763	0	1736	1827	1769	0
Flt Permitted	1703	U	0.094	1027	0.960	U
Satd. Flow (perm)	1763	0	172	1827	1769	0
	1703	Yes	172	102/	1/09	Yes
Right Turn on Red	14	res			13	res
Satd. Flow (RTOR)	16			FF		
Link Speed (mph)	45			55	30	
Link Distance (ft)	2095			5235	1845	
Travel Time (s)	31.7			64.9	41.9	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)	2.25	0.00	0.00	0.00	0.00	0.00
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	4%	4%	4%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1057	0	65	1202	286	0
Turn Type	NA		pm+pt	NA	Prot	
Protected Phases	4		3	8	2	
Permitted Phases			8			
Detector Phase	4		3	8	2	
Switch Phase						
Minimum Initial (s)	4.0		4.0	4.0	4.0	
Minimum Split (s)	20.0		8.0	20.0	20.0	
Total Split (s)	28.0		23.0	51.0	49.0	
Total Split (%)	28.0%		23.0%	51.0%	49.0%	
Yellow Time (s)	3.5		3.5	3.5	3.5	
All-Red Time (s)	0.5		0.5	0.5	0.5	
Lost Time Adjust (s)	0.0		0.0	0.0	0.0	
Total Lost Time (s)	4.0		4.0	4.0	4.0	
Lead/Lag	Lag		Lead	4.0	4.0	
Lead-Lag Optimize?	Yes		Yes			
Recall Mode				None	Min	
Act Effct Green (s)	None		None			
. , ,	38.7		47.2	47.2	16.1	
Actuated g/C Ratio	0.54		0.66	0.66	0.23	
v/c Ratio	1.10		0.25	1.00	0.70	
Control Delay	80.7		7.7	40.4	33.7	
Queue Delay	0.0		0.0	0.0	0.0	
Total Delay	80.7		7.7	40.4	33.7	
LOS	F		Α	D	С	

	-	•	•	<b>←</b>	•	<i>&gt;</i>	
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	
Approach Delay	80.7			38.7	33.7		
Approach LOS	F			D	С		
Intersection Summary							
Area Type:	Other						
Cycle Length: 100							
Actuated Cycle Length: 7	71.3						
Natural Cycle: 90							
Control Type: Actuated-U							
Maximum v/c Ratio: 1.10	)						
Intersection Signal Delay					tersection		
Intersection Capacity Uti				IC	CU Level o	of Service D	
Analysis Period (min) 15							
Splits and Phases: 3:	Weber Road &	Malabar	Road				
<b>↑</b> ø2					<b>√</b> ø3	1	<b>→</b> ø4
49 s					23 s		28 s
					₩ ø8	1	
1					E1 -		

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	f)		ሻ	f.			4			ર્ન	7
Volume (vph)	28	630	120	105	960	61	77	13	56	61	25	49
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	295		0	295		0	0		0	0		140
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1736	1776	0	1736	1810	0	0	1720	0	0	1835	1615
Flt Permitted	0.106			0.096				0.974			0.966	
Satd. Flow (perm)	194	1776	0	175	1810	0	0	1720	0	0	1835	1615
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		7	. 00		2	. 00		24	. 00			76
Link Speed (mph)		55			55			30			30	. 0
Link Distance (ft)		5235			2414			1424			1334	
Travel Time (s)		64.9			29.9			32.4			30.3	
Confl. Peds. (#/hr)		01.7	1	1	27.7			02.1			00.0	
Confl. Bikes (#/hr)				•								
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	2%	11%	0%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0 / 0	0	0	0
Parking (#/hr)	0	U	U	U	U	U	U	U	U	U	U	O
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)		070			070			070			070	
Lane Group Flow (vph)	30	815	0	114	1109	0	0	159	0	0	93	53
Turn Type	pm+pt	NA	U	pm+pt	NA	U	Split	NA	U	Split	NA	Perm
Protected Phases	5 pin+pt	2		ριτι <del>τ</del> ρι 1	6		3piit	8		3piit	4	1 CIIII
Permitted Phases	2	2		6	U		O	Ü		4	4	4
Detector Phase	5	2		1	6		8	8		4	4	4
Switch Phase	J	Z		1	U		U	U		7	7	4
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	8.0	20.0		8.0	20.0		20.0	20.0		20.0	20.0	20.0
Total Split (s)	15.0	39.0		15.0	39.0		42.0	42.0		34.0	34.0	34.0
Total Split (%)	11.5%	30.0%		11.5%	30.0%		32.3%	32.3%		26.2%	26.2%	26.2%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	32.370		3.5	3.5	3.5
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5		0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.5	0.0		0.5	0.0	0.0
Total Lost Time (s)	4.0	4.0		4.0	4.0			4.0			4.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag			4.0			4.0	4.0
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	None		None	None		Min	Min		Min	Min	Min
Act Effct Green (s)	41.6	35.3		47.2	43.5		IVIIII	12.0		IVIIII	9.6	9.6
. ,												
Actuated g/C Ratio	0.51	0.43		0.58	0.54			0.15			0.12	0.12
v/c Ratio	0.14	1.05		0.44	1.14			0.58			0.43	0.21
Control Delay	10.5	72.6		15.6	99.5			36.9			40.9	6.6
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay	10.5	72.6		15.6	99.5			36.9			40.9	6.6
LOS	В	E		В	F			D			D	Α

	•	<b>→</b>	•	•	<b>←</b>	•	4	<b>†</b>	<i>&gt;</i>	<b>\</b>	ļ	4
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		70.4			91.7			36.9			28.4	
Approach LOS		Е			F			D			С	
Intersection Summary												
Area Type:	Other											
Cycle Length: 130												
Actuated Cycle Length: 81	.2											
Natural Cycle: 130												
Control Type: Actuated-Un	coordinated											
Maximum v/c Ratio: 1.14												
Intersection Signal Delay:	76.5			In	tersection	n LOS: E						
Intersection Capacity Utiliz				IC	CU Level	of Service	Ε					
Analysis Period (min) 15												
Splits and Phases: 4: Co	orey Road &	Malabar I	Road									
√ø1 ♣ø2				∜\ <sub>ø4</sub>				<b>↑</b> † <sub>ø8</sub>				

Intersection													
Int Delay, s/veh	6												
Movement	EBL	EBT	EBR	WBL	WBT	WBR		NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	5	703	5	40	1114	8		15	5	25	5	10	15
Conflicting Peds, #/hr	0	0	0	0	0	0		0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free		Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None		-	-	None	-	-	None
Storage Length	-	-	-	-	-	-		-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-		-	0	-	-	0	-
Grade, %	-	0	-	-	0	-		-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92		92	92	92	92	92	92
Heavy Vehicles, %	4	4	4	4	4	4		0	0	5	0	0	0
Mvmt Flow	5	764	5	43	1211	9		16	5	27	5	11	16
Major/Minor	Major1			Major2			N	/linor1			Minor2		
Conflicting Flow All	1220	0	0	770	0	0		2094	2085	767	2096	2082	1215
Stage 1	-	-	-	-	-	-		778	778	-	1302	1302	-
Stage 2	-	-	-	-	-	-		1316	1307	-	794	780	-
Critical Hdwy	4.14	-	-	4.14	-	-		7.1	6.5	6.25	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-		6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-		6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.236	-	-	2.236	-	-		3.5	4	3.345	3.5	4	3.3
Pot Cap-1 Maneuver	565	-	-	836	-	-		39	54	397	39	54	223
Stage 1	-	-	-	-	-	-		392	410	-	200	233	-
Stage 2	-	-	-	-	-	-		196	232	-	384	409	-
Platoon blocked, %	_,_	-	-		-	-							
Mov Cap-1 Maneuver	565	-	-	836	-	-		26	45	397	29	45	223
Mov Cap-2 Maneuver	-	-	-	-	-	-		26	45	-	29	45	-
Stage 1	-	-	-	-	-	-		386	404	-	197	196	-
Stage 2	-	-	-	-	-	-		144	195	-	348	403	-
Approach	EB			WB				NB			SB		
HCM Control Delay, s	0.1			0.3				177.5			106.6		
HCM LOS								F			F		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR WBL	WBT	WBR S	SBLn1						
Capacity (veh/h)	60	565	-	- 836	-	_	65						
HCM Lane V/C Ratio	0.815	0.01	-	- 0.052	-	-	0.502						
HCM Control Delay (s)	177.5	11.4	0	- 9.5	0		106.6						
HCM Lane LOS	F	В	Α	- A	Α	-	F						
HCM 95th %tile Q(veh)	3.6	0	-	- 0.2	-	-	2						

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Lane Group	EBL2	EBL	EBR	SBL	SBR	SEL	SET	SER	NWL	NWT	NWR	
Lane Configurations	*		7				<b>†</b> †	7	ሻ	<b>^</b>	7	
Volume (vph)	431	0	264	0	0	0	1623	799	375	120	1079	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	
Grade (%)		0%		0%			0%			0%		
Storage Length (ft)		0	100	0	0	0		185	570		0	
Storage Lanes		1	1	0	0	0		1	1		1	
Taper Length (ft)		25		25		25			25			
Satd. Flow (prot)	1736	0	1553	0	0	0	3374	1509	1687	1776	1509	
Flt Permitted	0.950								0.125			
Satd. Flow (perm)	1736	0	1553	0	0	0	3374	1475	222	1776	1509	
Right Turn on Red			Yes					Yes			Yes	
Satd. Flow (RTOR)			387					487			1091	
Link Speed (mph)		30		30			45			45		
Link Distance (ft)		3209		245			551			747		
Travel Time (s)		72.9		5.6			8.3			11.3		
Confl. Peds. (#/hr)								2				
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Heavy Vehicles (%)	4%	0%	4%	0%	0%	0%	7%	7%	7%	7%	7%	
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	
Parking (#/hr)	J	•		J	· ·	· ·	· ·	J	J	J	· ·	
Mid-Block Traffic (%)		0%		0%			0%			0%		
Shared Lane Traffic (%)		0,0		0,0			0,70			0,0		
Lane Group Flow (vph)	468	0	287	0	0	0	1764	868	408	130	1173	
Turn Type	Prot	•	Prot	J	· ·	· ·	NA	Perm	D.P+P	NA	custom	
Protected Phases	4		4				2		1	2.1	Free	
Permitted Phases	•		4				_	2	2			
Detector Phase	4		4				2	2	1	2 1		
Switch Phase	•		•				_	_	•			
Minimum Initial (s)	10.0		10.0				15.0	15.0	10.0			
Minimum Split (s)	21.5		21.5				23.0	23.0	15.5			
Total Split (s)	28.1		28.1				38.9	38.9	23.0			
Total Split (%)	31.2%		31.2%				43.2%	43.2%	25.6%			
Yellow Time (s)	4.0		4.0				5.0	5.0	4.0			
All-Red Time (s)	1.5		1.5				2.0	2.0	1.5			
Lost Time Adjust (s)	0.0		0.0				0.0	0.0	0.0			
Total Lost Time (s)	5.5		5.5				7.0	7.0	5.5			
Lead/Lag	0.0		3.3				Lag	Lag	Lead			
Lead-Lag Optimize?							Yes	Yes	Yes			
Recall Mode	None		None				Min	Min	None			
Act Effct Green (s)	22.6		22.6				31.9	31.9	50.9	54.9	90.0	
Actuated g/C Ratio	0.25		0.25				0.35	0.35	0.57	0.61	1.00	
v/c Ratio	1.08		0.23				1.48	1.04	1.00	0.01	0.78	
Control Delay	99.3		2.6				245.3	55.9	69.7	7.8	4.0	
Queue Delay	0.0		0.0				0.0	0.0	0.0	0.0	0.0	
<u> </u>	99.3		2.6				245.3	55.9	69.7	7.8	4.0	
Total Delay LOS												
LUS	F		Α				F	Е	Е	Α	А	

	<b>&gt;</b>	ၨ	74	Ļ	4	•	×	4	+	×	•	
Lane Group	EBL2	EBL	EBR	SBL	SBR	SEL	SET	SER	NWL	NWT	NWR	
Approach Delay							182.8			20.0		
Approach LOS							F			В		
Intersection Summary												
<i>3</i> i	)ther											
Cycle Length: 90												
Actuated Cycle Length: 90												
Natural Cycle: 130												
Control Type: Actuated-Unco	ordinated											
Maximum v/c Ratio: 1.48												
Intersection Signal Delay: 11	0.4			In	tersection	LOS: F						
Intersection Capacity Utilizati	on 103.3%	)		IC	U Level o	of Service	G					
Analysis Period (min) 15												
Splits and Phases: 6: US 1	& Malaba	r Road										
<b>★</b> ø1	3	ø2						- <b>Z</b> ø4				
23 s	38.9	9 s						28.1 s				

## Arterial Level of Service: EB Malabar Road

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
Weber Road	II	42	98.7	80.7	179.4	1.14	22.9	С
Corey Road		55	64.9	72.6	137.5	0.99	26.0	С
US 1	I	35	170.0	2.6	172.6	1.65	34.5	В
Total	ll .		333.6	155.9	489.5	3.78	27.8	C

## Arterial Level of Service: WB Malabar Road

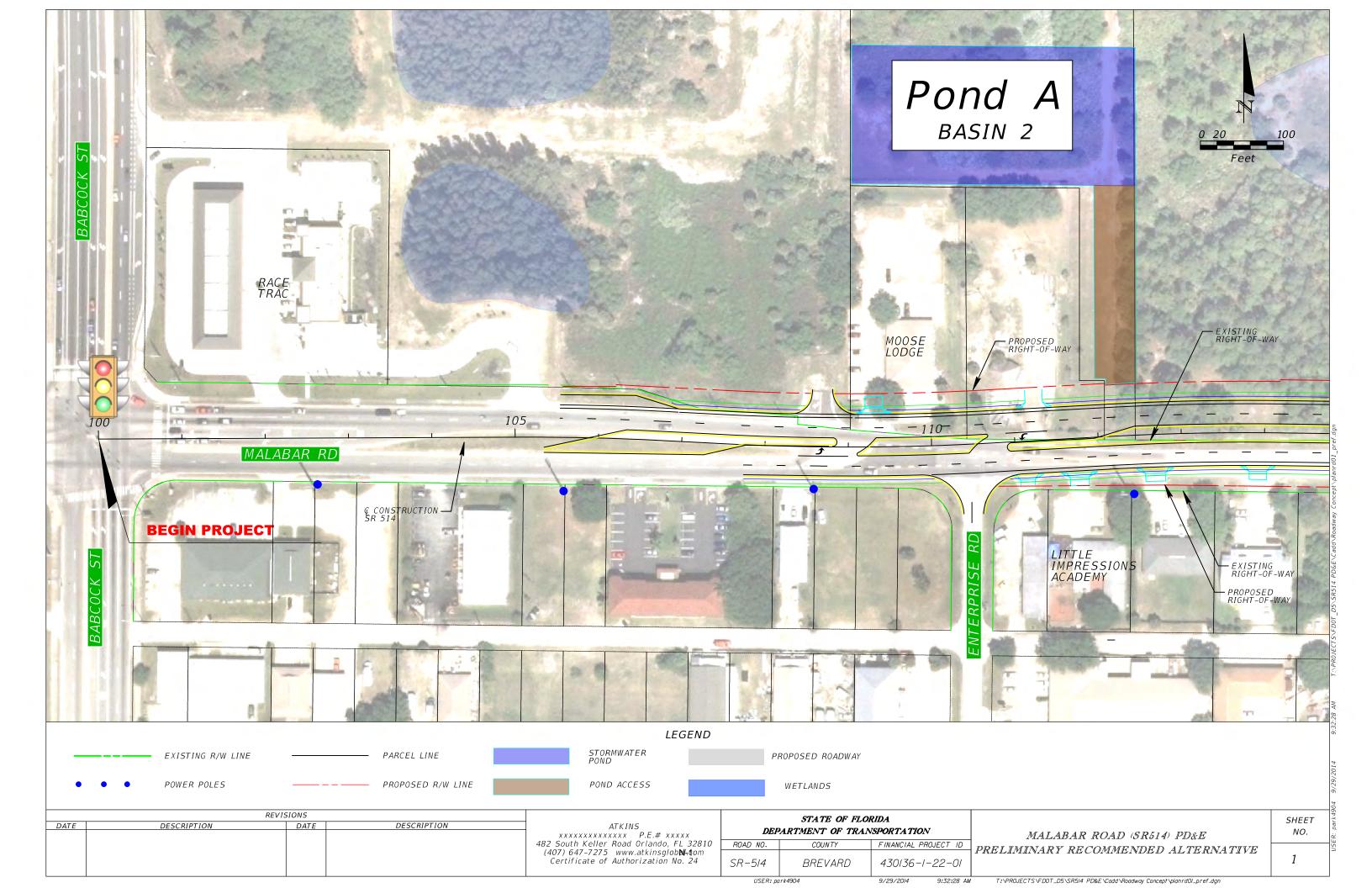
	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
Corey Road	II	40	149.8	99.5	249.3	1.65	23.9	С
Weber Road		55	64.9	40.4	105.3	0.99	33.9	В
Total	II		214.7	139.9	354.6	2.64	26.8	С

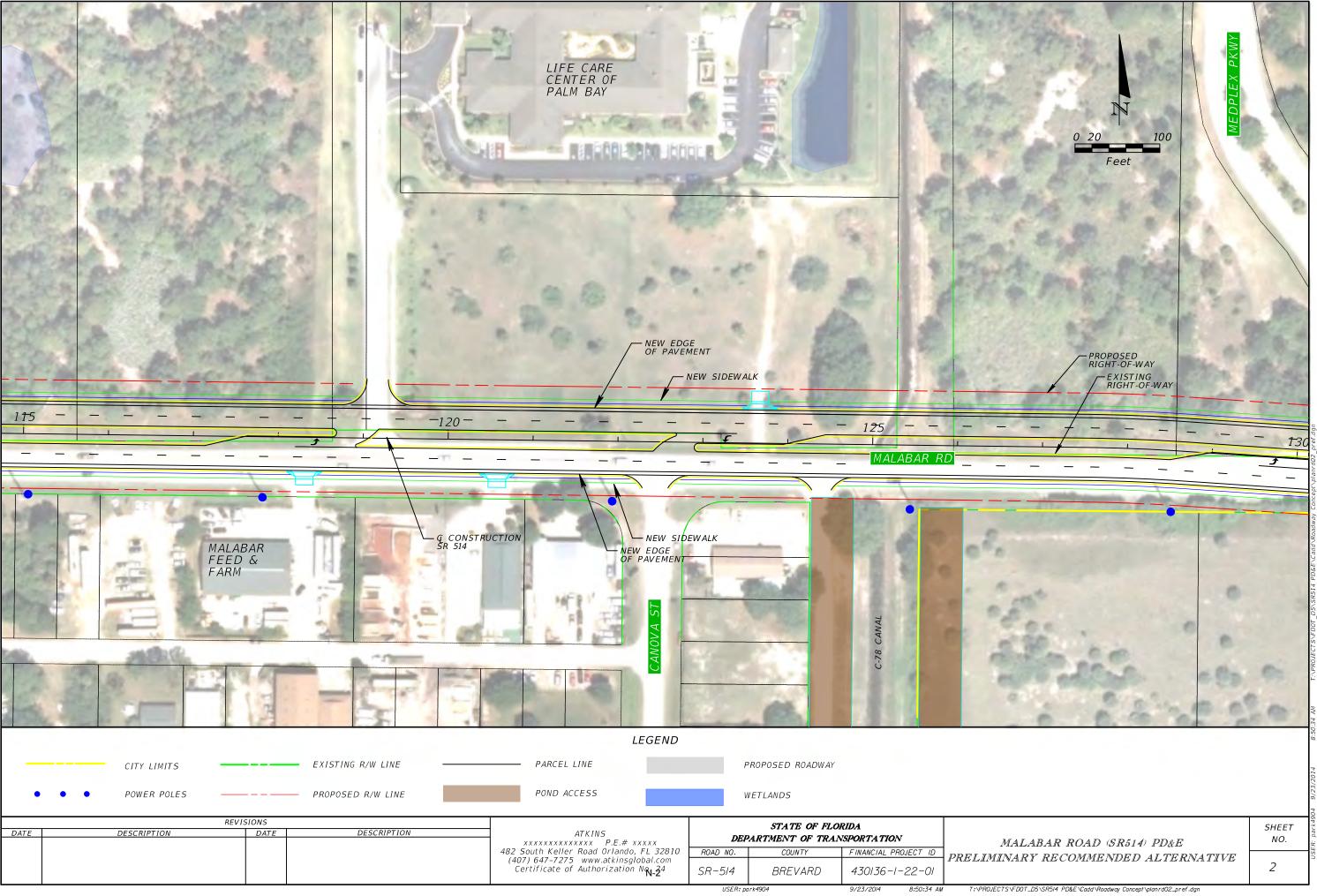
SR 514 DTTM Update

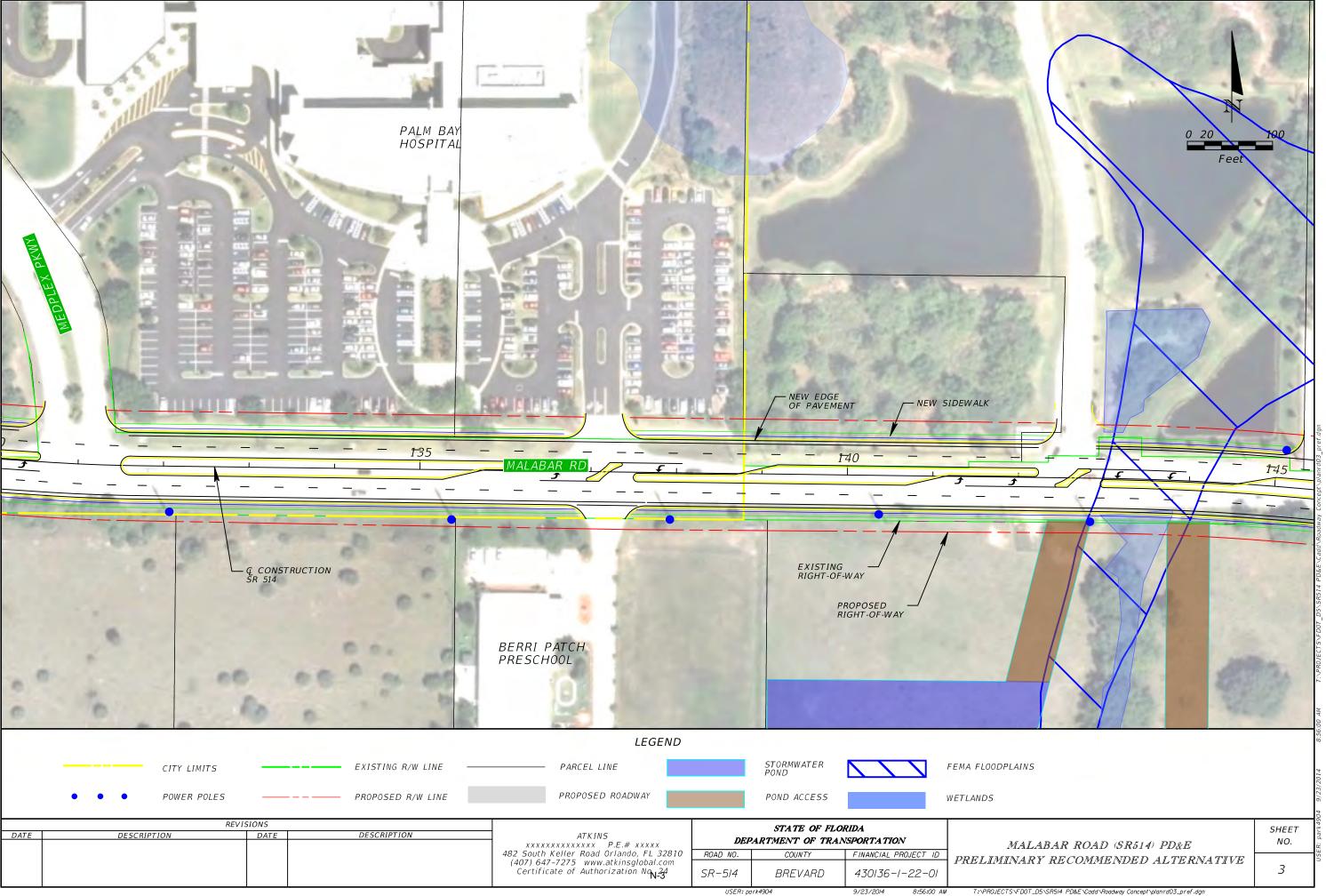
Synchro 8 Report
Page 16

# Appendix N

Excerpt from the SR 514 Access Management Plan







# Appendix O

Synchro Output Sheets - Build Alternative

Intersection									
Int Delay, s/veh	1.1								
in Dolay, 3, voli	1.1								
Movement	EBL	EBT				WBT	WBR	SBL	SBR
Vol, veh/h	137	1154				766	12	3BL 6	71
Conflicting Peds, #/hr	0	0				0	0	0	0
Sign Control	Free	Free				Free	Free	Stop	Stop
RT Channelized	-	None				-	None	- -	None
Storage Length	200	-				_	160	0	0
Veh in Median Storage,		0				0	-	1	-
Grade, %	_	0				0	-	0	-
Peak Hour Factor	92	92				92	92	92	92
Heavy Vehicles, %	4	4				4	4	0	5
Mvmt Flow	149	1254				833	13	7	77
Major/Minor	Major1					Majora		Minor2	
Major/Minor	Major1	0				Major2	0		11/
Conflicting Flow All	833	0				-	0	1758	416
Stage 1	-	-				-	-	833 925	-
Stage 2	4.18	-				-	-	6.8	7
Critical Hdwy Stg 1	4.18	-				-	-	5.8	-
Critical Hdwy Stg 1 Critical Hdwy Stg 2	-	-				-	-	5.8	-
Follow-up Hdwy	2.24	-				-	-	3.5	3.35
Pot Cap-1 Maneuver	783	-				-	-	3.3 78	577
Stage 1	703	_				-	-	392	511
Stage 2	-							351	-
Platoon blocked, %		_				-	-	JJ 1	-
Mov Cap-1 Maneuver	783	_				_	_	63	577
Mov Cap-2 Maneuver	-	-				_	-	178	-
Stage 1	_	_				_	_	392	-
Stage 2	_	-				-	-	284	-
- 1-90 =									
A managash	ED.					WD		CD	
Approach	EB					WB		SB	
HCM Control Delay, s	1.1					0		13.3	
HCM LOS								В	
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR S	BL <sub>n1</sub>	SBLn2			
Capacity (veh/h)	783	-	-	-	178	577			
HCM Lane V/C Ratio	0.19	-	-	-	0.037	0.134			
HCM Control Delay (s)	10.7	-	-	-	26	12.2			
HCM Lane LOS	В	-	-	-	D	В			
HCM 95th %tile Q(veh)	0.7	-	-	-	0.1	0.5			

O-1

	-	•	•	←	4	~
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	<b>^</b>	7	ሻ	**	ሻ	7
Volume (vph)	990	176	30	658	217	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%	12		0%	0%	12
Storage Length (ft)		250	255	2.0	250	0
Storage Lanes		1	1		1	1
Taper Length (ft)		•	25		25	
Satd. Flow (prot)	3471	1553	1736	3471	1770	1615
Flt Permitted	5171	.000	0.189	5.,,	0.950	
Satd. Flow (perm)	3471	1553	345	3471	1770	1615
Right Turn on Red	3171	Yes	0+0	3171	1770	Yes
Satd. Flow (RTOR)		191				51
Link Speed (mph)	45	171		55	30	J1
Link Distance (ft)	2095			5235	1845	
Travel Time (s)	31.7			64.9	41.9	
Confl. Peds. (#/hr)	31.7			04.7	41.7	
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	4%	4%	4%	2%	0%
	4%	4%	4%	4%	2%	0%
Bus Blockages (#/hr)	U	U	U	U	U	U
Parking (#/hr)	0%			0%	0%	
Mid-Block Traffic (%)	U%			υ%	U%	
Shared Lane Traffic (%)	107/	191	33	71 -	22/	Г1
Lane Group Flow (vph)	1076			715	236	51
Turn Type	NA	Perm	pm+pt	NA	Prot	Perm
Protected Phases	4	4	3	8	2	2
Permitted Phases		4	8			2
Detector Phase	4	4	3	8	2	2
Switch Phase			, -	, -		
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	8.0	20.0	20.0	20.0
Total Split (s)	22.0	22.0	8.0	30.0	20.0	20.0
Total Split (%)	44.0%	44.0%	16.0%	60.0%	40.0%	40.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	None	None	None	None	Min	Min
Act Effct Green (s)	17.2	17.2	19.7	19.7	10.6	10.6
Actuated g/C Ratio	0.44	0.44	0.51	0.51	0.27	0.27
v/c Ratio	0.70	0.24	0.10	0.40	0.49	0.11
Control Delay	14.5	3.2	6.0	6.9	16.7	5.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.5	3.2	6.0	6.9	16.7	5.3
LOS	В	A	A	A	В	A
		, ,	, \	, \		, ,

	<b>→</b>	$\rightarrow$	•	<b>←</b>	•	<b>/</b>	
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	
Approach Delay	12.8			6.8	14.6		
Approach LOS	В			А	В		
Intersection Summary							
Area Type:	Other						
Cycle Length: 50							
Actuated Cycle Length: 3	8.7						
Natural Cycle: 50							
Control Type: Actuated-U	ncoordinated						
Maximum v/c Ratio: 0.70							
Intersection Signal Delay:	11.1			Int	ersection	LOS: B	
Intersection Capacity Utili	zation 46.1%			IC	U Level c	of Service A	
Analysis Period (min) 15							
-							
Splits and Phases: 3: V	Veber Road &	Malabar	Road				
<b>√</b> /ø2				<b>√</b> ø3		- 4	
20 s			8			22 s	

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	<b>∱</b> ∱		ሻ	<b>↑</b> Ъ		ሻ	f.			ર્ન	7
Volume (vph)	54	882	95	50	557	21	95	11	85	32	10	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	295		0	295		0	250		0	0		140
Storage Lanes	1		0	1		0	1		0	0		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1736	3412	0	1736	3454	0	1770	1627	0	0	1830	1615
Flt Permitted	0.339			0.175			0.950				0.963	
Satd. Flow (perm)	619	3412	0	320	3454	0	1770	1627	0	0	1830	1615
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		16			5			92				131
Link Speed (mph)		55			55			30			30	
Link Distance (ft)		5235			900			1424			1334	
Travel Time (s)		64.9			11.2			32.4			30.3	
Confl. Peds. (#/hr)			1	1								
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	2%	11%	0%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	59	1062	0	54	628	0	103	104	0	0	46	42
Turn Type	pm+pt	NA		pm+pt	NA		Split	NA		Split	NA	Perm
Protected Phases	5	2		1	6		. 8	8		4	4	
Permitted Phases	2			6								4
Detector Phase	5	2		1	6		8	8		4	4	4
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	8.0	20.0		8.0	20.0		20.0	20.0		20.0	20.0	20.0
Total Split (s)	9.0	27.0		8.0	26.0		20.0	20.0		20.0	20.0	20.0
Total Split (%)	12.0%	36.0%		10.7%	34.7%		26.7%	26.7%		26.7%	26.7%	26.7%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5		0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0	0.0
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0			4.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	None		None	None		Min	Min		Min	Min	Min
Act Effct Green (s)	26.1	23.3		25.0	22.8		8.6	8.6			7.0	7.0
Actuated g/C Ratio	0.47	0.42		0.45	0.41		0.15	0.15			0.13	0.13
v/c Ratio	0.15	0.74		0.22	0.44		0.38	0.32			0.20	0.13
Control Delay	9.0	19.4		10.4	14.6		26.5	10.2			26.1	0.9
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0			0.0	0.0
Total Delay	9.0	19.4		10.4	14.6		26.5	10.2			26.1	0.9
LOS	A	В		В	В		C	В			C	A
	, \	ט		ט	<u> </u>		<u> </u>	<i>D</i>			<u> </u>	

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		18.8			14.3			18.3			14.0	
Approach LOS		В			В			В			В	
Intersection Summary												
Area Type:	Other											
Cycle Length: 75												
Actuated Cycle Length: 55.	5											
Natural Cycle: 75												
Control Type: Actuated-Und	coordinated											
Maximum v/c Ratio: 0.74												
Intersection Signal Delay: 1	7.1			In	tersection	n LOS: B						
Intersection Capacity Utiliza				IC	CU Level of	of Service	Α					
Analysis Period (min) 15												
Splits and Phases: 4: Co	rey Road &	Malabar I	Road									
<b>√</b> <sub>01</sub> <b>△</b> <sub>02</sub>					1			Τ.	<b>√</b> 1 <sub>Ø8</sub>			
8 s 27 s				2	0 s			20	) s			
<i>▶</i> <del>4.</del>												

Intersection												
Int Delay, s/veh	1											
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NB	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	9	904	10	15	602	2		3 1	37	3	1	6
Conflicting Peds, #/hr	0	0	0	0	0	0		0 0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Sto	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None			None	-	-	None
Storage Length	-	-	-	-	-	-			-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-		- 0	-	-	0	-
Grade, %	-	0	-	-	0	-		- 0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	9	2 92	92	92	92	92
Heavy Vehicles, %	4	4	4	4	4	4		0 0	0	0	0	0
Mvmt Flow	10	983	11	16	654	2		3 1	40	3	1	7
Major/Minor	Major1			Major2			Minor	1		Minor2		
Conflicting Flow All	657	0	0	993	0	0	170		988	1716	1701	655
Stage 1	-	-	-	-	-	-	100		-	688	688	-
Stage 2	-	-	-	-	-	-	69		-	1028	1013	_
Critical Hdwy	4.14	-	-	4.14	_	-	7.		6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.		-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.	1 5.5	-	6.1	5.5	-
Follow-up Hdwy	2.236	-	-	2.236	-	-	3.	5 4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	921	-	-	689	-	-	7	4 93	303	72	93	470
Stage 1	-	-	-	-	-	-	29	2 321	-	440	450	-
Stage 2	-	-	-	-	-	-	43	7 450	-	285	319	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	921	-	-	689	-	-	6	9 87	303	59	87	470
Mov Cap-2 Maneuver	-	-	-	-	-	-	6	9 87	-	59	87	-
Stage 1	-	-	-	-	-	-	28	5 313	-	429	433	-
Stage 2	-	-	-	-	-	-	41	4 433	-	240	311	-
Approach	EB			WB			NI	3		SB		
HCM Control Delay, s	0.1			0.3			24.			34.5		
HCM LOS	0.1			0.0						D		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR WBL	WBT	WBR S	CRI n1					
	232	921		- 689		WDR	133					
Capacity (veh/h) HCM Lane V/C Ratio	0.192		-	- 0.024	-	-	0.082					
	24.2		- 0	- 0.024	0	-	34.5					
HCM Control Delay (s) HCM Lane LOS	24.2 C	9 A	A	- 10.4 - B	A	-	34.5 D					
HCM 95th %tile Q(veh)	0.7	0	- A	- B	A -	-	0.3					
HOW FOUT MITE Q(VEII)	0.7	U	-	- 0.1	-	-	0.3					

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Lane Group	EBL2	EBL	EBR	SBL	SBR	SEL	SET	SER	NWL	NWT	NWR	
Lane Configurations	ሻ		7				<b>^</b>	7	ሻ	<b>^</b>	7	
Volume (vph)	696	0	233	0	0	0	894	497	224	92	821	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	
Grade (%)		0%		0%			0%			0%		
Storage Length (ft)		0	100	0	0	0		185	570		0	
Storage Lanes		1	1	0	0	0		1	1		1	
Taper Length (ft)		25		25		25			25			
Satd. Flow (prot)	1736	0	1553	0	0	0	3374	1509	1687	1776	1509	
Flt Permitted	0.950								0.122			
Satd. Flow (perm)	1736	0	1553	0	0	0	3374	1474	217	1776	1509	
Right Turn on Red			Yes					Yes			Yes	
Satd. Flow (RTOR)			296					413			892	
Link Speed (mph)		30		30			45			45		
Link Distance (ft)		3209		245			551			747		
Travel Time (s)		72.9		5.6			8.3			11.3		
Confl. Peds. (#/hr)								2				
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Heavy Vehicles (%)	4%	0%	4%	0%	0%	0%	7%	7%	7%	7%	7%	
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	
Parking (#/hr)	J	· ·		J	· ·		J	J	J	· ·		
Mid-Block Traffic (%)		0%		0%			0%			0%		
Shared Lane Traffic (%)		0,0		0,0			0.0			070		
Lane Group Flow (vph)	757	0	253	0	0	0	972	540	243	100	892	
Turn Type	Prot	· ·	Prot	J	· ·		NA	Perm	D.P+P	NA	custom	
Protected Phases	4		4				2		1	2.1	Free	
Permitted Phases	•		4				_	2	2			
Detector Phase	4		4				2	2	1	2 1		
Switch Phase	•		•				_	_	•			
Minimum Initial (s)	10.0		10.0				15.0	15.0	10.0			
Minimum Split (s)	21.5		21.5				23.0	23.0	15.5			
Total Split (s)	53.0		53.0				39.8	39.8	17.2			
Total Split (%)	48.2%		48.2%				36.2%	36.2%	15.6%			
Yellow Time (s)	4.0		4.0				5.0	5.0	4.0			
All-Red Time (s)	1.5		1.5				2.0	2.0	1.5			
Lost Time Adjust (s)	0.0		0.0				0.0	0.0	0.0			
Total Lost Time (s)	5.5		5.5				7.0	7.0	5.5			
Lead/Lag	0.0		3.3				Lag	Lag	Lead			
Lead-Lag Optimize?							Yes	Yes	Yes			
Recall Mode	None		None				Min	Min	None			
Act Effct Green (s)	47.5		47.5				32.8	32.8	46.0	50.0	110.0	
Actuated g/C Ratio	0.43		0.43				0.30	0.30	0.42	0.45	1.00	
v/c Ratio	1.01		0.43				0.30	0.30	0.42	0.43	0.59	
Control Delay	67.6		2.1				59.9	15.3	82.0	17.9	1.7	
3	0.0		0.0				0.0	0.0			0.0	
Queue Delay	67.6						59.9		0.0	0.0 17.9		
Total Delay			2.1					15.3	82.0		1.7	
LOS	E		Α				Е	В	F	В	Α	

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Lane Group	EBL2	EBL	EBR	SBL	SBR	SEL	SET	SER	NWL	NWT	NWR	
Approach Delay							44.0			18.8		
Approach LOS							D			В		
Intersection Summary												
Area Type:	)ther											
Cycle Length: 110												
Actuated Cycle Length: 110												
Natural Cycle: 110												
Control Type: Actuated-Unco	ordinated											
Maximum v/c Ratio: 1.01												
Intersection Signal Delay: 37	.7			Int	ersection	LOS: D						
Intersection Capacity Utilizati	on 89.4%			IC	U Level c	of Service	E					
Analysis Period (min) 15												
Splits and Phases: 6: US 1	& Malaba	r Road										
<b>★</b> <sub>01</sub>	2				_}	ø4						
17.2 s 39.8 s					53 s							

Arterial Level of Service 2025 AM Build
3/13/2015

## Arterial Level of Service: EB Malabar Road

Curan Church	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
Weber Road	II	42	98.7	14.5	113.2	1.14	36.2	А
Corey Road	II	55	64.9	19.4	84.3	0.99	42.3	Α
US 1		35	169.9	2.1	172.0	1.65	34.6	В
Total			333.5	36.0	369.5	3.78	36.9	A

## Arterial Level of Service: WB Malabar Road

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
Corey Road	II	40	149.9	14.6	164.5	1.65	36.2	А
Weber Road	I	55	64.9	6.9	71.8	0.99	49.7	А
Total	II		214.8	21.5	236.3	2.64	40.3	А

SR 514 DTTM Update

Synchro 8 Report
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Intersection								
Int Delay, s/veh	1.7							
in Donay or von								
Movement	EBL	EBT			WBT	WBR	SBL	SBR
Vol, veh/h	65	795			1153	13	8	141
Conflicting Peds, #/hr	0	0			0	0	0	0
Sign Control	Free	Free			Free	Free	Stop	Stop
RT Channelized	-				-	None	- -	None
Storage Length	200	-			_	160	0	0
Veh in Median Storage, #		0			0	-	1	-
Grade, %	<u> </u>	0			0	-	0	_
Peak Hour Factor	92	92			92	92	92	92
Heavy Vehicles, %	4	4			4	4	0	3
Mvmt Flow	71	864			1253	14	9	153
Major/Minor	Major1				Major?		Minor2	
	Major1 1253	0			Major2	0	1826	627
Conflicting Flow All	1253	U			-	0	1826	627
Stage 1 Stage 2	-	-			-	-	573	-
Critical Hdwy	4.18	-			-	-	6.8	6.96
Critical Hdwy Stg 1	4.10	-			-	-	5.8	0.90
Critical Hdwy Stg 2	-				_		5.8	-
Follow-up Hdwy	2.24	_			_	_	3.5	3.33
Pot Cap-1 Maneuver	540	_			_	_	70	424
Stage 1	-	_			_	_	236	-
Stage 2	-	_			_	_	533	-
Platoon blocked, %		-			-	-		
Mov Cap-1 Maneuver	540	_			_	_	61	424
Mov Cap-2 Maneuver	-	-			-	-	167	-
Stage 1	-	-			-	-	236	-
Stage 2	-	-			-	-	463	-
<u> </u>								
Annroach	EB				WB		SB	
Approach							18.7	
HCM Control Delay, s HCM LOS	1				0		18.7 C	
HOW LUS							C	
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR SBLn1				
Capacity (veh/h)	540	-	-	- 167	424			
HCM Lane V/C Ratio	0.131	-	-	- 0.052				
HCM Control Delay (s)	12.7	-	-	- 27.7	18.2			
HCM Lane LOS	В	-	-	- D	С			
HCM 95th %tile Q(veh)	0.4	-	-	- 0.2	1.6			

0-10

	-	•	•	•	1	/
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	<b>^</b>	7	ሻ	<b>†</b> †	<u> </u>	7
Volume (vph)	609	182	48	983	133	35
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	1700	1700	1700	1700	1700
Grade (%)	0%	12	12	0%	0%	12
Storage Length (ft)	0 70	250	255	0 70	250	0
Storage Lanes		230	233		250	1
Taper Length (ft)		ı	25		25	ı I
Satd. Flow (prot)	3471	1553	1736	3471	1787	1615
Flt Permitted	3471	1000	0.292	J47 I	0.950	1013
	2/171	1552		2471		1615
Satd. Flow (perm)	3471	1553	533	3471	1787	
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	45	198			0.0	38
Link Speed (mph)	45			55	30	
Link Distance (ft)	2095			5235	1845	
Travel Time (s)	31.7			64.9	41.9	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	4%	4%	4%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)			-		-	-
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)	070			370	370	
Lane Group Flow (vph)	662	198	52	1068	145	38
Turn Type	NA	Perm	pm+pt	NA	Prot	Perm
Protected Phases	4	i Cilii	μπ+μι 3	8	2	i Cilii
Permitted Phases	4	Λ		Ó	Z	2
	1	4	8	0	2	2
Detector Phase	4	4	3	8	2	2
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	8.0	20.0	20.0	20.0
Total Split (s)	21.0	21.0	8.0	29.0	21.0	21.0
Total Split (%)	42.0%	42.0%	16.0%	58.0%	42.0%	42.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lag	Lead	1.0	110	
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	None	None	None	None	Min	Min
Act Effct Green (s)	15.3	15.3	17.8	17.8	8.4	8.4
, ,						0.24
Actuated g/C Ratio	0.44	0.44	0.51	0.51	0.24	
v/c Ratio	0.43	0.25	0.12	0.60	0.33	0.09
Control Delay	9.0	3.0	5.0	7.5	14.8	6.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.0	3.0	5.0	7.5	14.8	6.2
LOS	Α	Α	Α	Α	В	Α

	-	$\rightarrow$	•	←	•	<b>/</b>	
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	
Approach Delay	7.6			7.4	13.0		
Approach LOS	А			Α	В		
Intersection Summary							
Area Type:	Other						
Cycle Length: 50							
Actuated Cycle Length:	34.7						
Natural Cycle: 50							
Control Type: Actuated-	Uncoordinated						
Maximum v/c Ratio: 0.6	0						
Intersection Signal Dela	y: 8.0			Int	tersection	LOS: A	
Intersection Capacity Ut	ilization 41.2%			IC	U Level c	of Service A	
Analysis Period (min) 15	5						
Calita and Dhagas	Mohor Dog-10	Malahan	Dood				
Splits and Phases: 3:	weber Road &	Malabal	Roau				
ÿ2				ÿ3		<del>⊸</del> ø4	
21 s				8 s		21 s	
				<b>★</b> 68			
				70 c			

Lane Configurations		۶	<b>→</b>	•	•	<b>←</b>	•	4	†	<i>&gt;</i>	<b>/</b>	ļ	✓
Volume (vph)         27         550         111         57         839         37         69         5         33         39         15         36           Ideal Flow (vphpl)         1900         1400         1900         1900         1900         1900         1900         1900         1900         1900         1900         1900         1900         1900         1900         1900         19	Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Volume (vph)         27         550         111         57         839         37         69         5         33         39         15         36           Ideal Flow (vphpl)         1900         1400         1900         1900         1900         1900         1900         1900         1900         1900         1900         1900         1900         1900         1900         1900         19	Lane Configurations	ሻ	<b>♦</b> 13-		ሻ	<b>♦</b> %		ሻ	ĵ.			ર્વ	7
Ideal Flow (vphpl)				111		839	37			33	39		36
Lane Width (ft)         12         14         0         0         0         140	· 1 /								1900				1900
Grade (%)         0%         0%         0%           Storage Length (ft)         295         0         295         0         250         0         0         140           Storage Lanes         1         0         1         0         1         0         0         140           Taper Length (ft)         25         25         25         25         25         25           Satd. Flow (prot)         1736         3372         0         1736         3450         0         1770         1627         0         0         1834         1615           Flt Permitted         0.213         0.271         0.950         0.965         0.965         5         5         30         0.965         0.965         5         340         1615         0         0         1834         1615         1615         1615         0         0         1834         1615         1615         1615         0         0         1834         1615         1615         1615         1615         1615         1615         1615         1615         1615         1615         1615         1615         1615         1615         1615         1615         1615         1615         <			12		12								12
Storage Length (ft)         295         0         295         0         250         0         0         140           Storage Lanes         1         0         1         0         1         0         0         0         1           Taper Length (ft)         25         25         25         25         25         25           Satd. Flow (prot)         1736         3372         0         1736         3450         0         1770         1627         0         0         1834         1615           Fit Permitted         0.213         0.271         0.950         0.965						0%			0%				
Storage Lanes         1         0         1         0         1         0         0         1           Taper Length (ft)         25         26         26         20         20         26         26         26         27         27         27         28         27         27         28         25         25         25         25 <td></td> <td>295</td> <td></td> <td>0</td> <td>295</td> <td></td> <td>0</td> <td>250</td> <td></td> <td>0</td> <td>0</td> <td></td> <td>140</td>		295		0	295		0	250		0	0		140
Taper Length (ft)         25         25         25         25           Satd. Flow (prot)         1736         3372         0         1736         3450         0         1770         1627         0         0         1834         1615           Fit Permitted         0.213         0.271         0.950         0.965         0.965           Satd. Flow (perm)         389         3372         0         495         3450         0         1770         1627         0         0         1834         1615           Satd. Flow (perm)         389         3372         0         495         3450         0         1770         1627         0         0         1834         1615           Right Turn on Red         Yes         Yes         Yes         Yes         Yes         Yes           Satd. Flow (RTOR)         33         6         36         140         30	0 0 1 7												1
Satd. Flow (prot)         1736         3372         0         1736         3450         0         1770         1627         0         0         1834         1615           Flt Permitted         0.213         0.271         0.950         0.965         0.965           Satd. Flow (perm)         389         3372         0         495         3450         0         1770         1627         0         0         1834         1615           Right Turn on Red         Yes         Yes         Yes         Yes         Yes         Yes           Satd. Flow (RTOR)         33         6         36         140         140           Link Speed (mph)         55         55         30         30         30           Link Distance (ft)         5235         900         1424         1334           Travel Time (s)         64.9         11.2         32.4         30.3           Confl. Peds. (#/hr)         1         1         1         1           Confl. Bikes (#/hr)         2         0.92         0.92         0.92         0.92         0.92         0.92         0.92         0.92         0.92         0.92         0.92         0.92         0.92         0.92		25			25								
Fit Permitted         0.213         0.271         0.950         0.965           Satd. Flow (perm)         389         3372         0         495         3450         0         1770         1627         0         0         1834         1615           Right Turn on Red         Yes         Yes         Yes         Yes         Yes           Satd. Flow (RTOR)         33         6         36         140           Link Speed (mph)         55         55         30         30           Link Distance (ft)         5235         900         1424         1334           Travel Time (s)         64.9         11.2         32.4         30.3           Confl. Peds. (#/hr)         1         1         1         1           Confl. Bikes (#/hr)         0.92			3372	0		3450	0		1627	0		1834	1615
Satd. Flow (perm)         389         3372         0         495         3450         0         1770         1627         0         0         1834         1615           Right Turn on Red         Yes         Yes         Yes         Yes         Yes           Satd. Flow (RTOR)         333         6         36         Yes           Satd. Flow (RTOR)         333         6         36         36         140           Link Speed (mph)         55         55         30         30         30           Link Distance (ft)         5235         900         1424         1334           Travel Time (s)         64.9         11.2         32.4         30.3           Confl. Peds. (#/hr)         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1         1													
Right Turn on Red         Yes         Yes         Yes         Yes           Satd. Flow (RTOR)         33         6         36         140           Link Speed (mph)         55         55         30         30           Link Distance (ft)         5235         900         1424         1334           Travel Time (s)         64.9         11.2         32.4         30.3           Confl. Peds. (#/hr)         1         1         1           Confl. Bikes (#/hr)         90         0.92			3372	0		3450	0		1627	0	0		1615
Satd. Flow (RTOR)       33       6       36       140         Link Speed (mph)       55       55       30       30         Link Distance (ft)       5235       900       1424       1334         Travel Time (s)       64.9       11.2       32.4       30.3         Confl. Peds. (#/hr)       1       1       1         Confl. Bikes (#/hr)       90       0.92 <td></td> <td>Yes</td>													Yes
Link Speed (mph)         55         55         30         30           Link Distance (ft)         5235         900         1424         1334           Travel Time (s)         64.9         11.2         32.4         30.3           Confl. Peds. (#/hr)         1         1         1           Confl. Bikes (#/hr)         900         0.92         0.92         0.92           Peak Hour Factor         0.92 <t< td=""><td></td><td></td><td>33</td><td>. 00</td><td></td><td>6</td><td>. 00</td><td></td><td>36</td><td>. 00</td><td></td><td></td><td>140</td></t<>			33	. 00		6	. 00		36	. 00			140
Link Distance (ft)       5235       900       1424       1334         Travel Time (s)       64.9       11.2       32.4       30.3         Confl. Peds. (#/hr)       1       1       1         Confl. Bikes (#/hr)       Very Confl. B												30	
Travel Time (s) 64.9 11.2 32.4 30.3  Confl. Peds. (#/hr) 1 1  Confl. Bikes (#/hr)  Peak Hour Factor 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92													
Confl. Peds. (#/hr) 1 1 1  Confl. Bikes (#/hr)  Peak Hour Factor 0.92 0.92 0.92 0.92 0.92 0.92 0.92 0.92													
Confl. Bikes (#/hr)         Peak Hour Factor         0.92	` '		04.7	1	1	11.2			JZ.7			30.3	
Peak Hour Factor         0.92	` ,			'									
Growth Factor 100% 100% 100% 100% 100% 100% 100% 100		0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Heavy Vehicles (%) 4% 4% 4% 4% 4% 2% 11% 0% 0% 0% 0%													
	, ,												0 / 0
Parking (#/hr)		U	U	U	U	U	U	U	U	U	U	U	U
Mid-Block Traffic (%) 0% 0% 0%			∩0/			∩0/			Λ0/.			<b>N</b> 0/.	
Shared Lane Traffic (%)	, ,		070			0 /0			070			0 /0	
· ·	` ,	20	710	0	40	0E2	0	75	11	0	Λ	EO	39
				U			U			U			
											-		Perm
			Z		•	0		Ö	Ö		4	4	1
			2			L		0	0		1	1	4
		5	2		I	0		ð	ď		4	4	4
Switch Phase		4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
· ,	` ,												4.0
													20.0
													20.0
													28.6%
													3.5
											0.5		0.5
													0.0
• • • • • • • • • • • • • • • • • • • •								4.0	4.0			4.0	4.0
Lead/Lag Lead Lag Lead Lag						•							
Lead-Lag Optimize? Yes Yes Yes													
											Min		Min
· · · · · · · · · · · · · · · · · · ·	. ,												7.1
													0.14
													0.11
,	Control Delay				9.9			22.8				22.7	0.6
	Queue Delay							0.0	0.0				0.0
		9.2	15.7		9.9	18.3		22.8	10.6			22.7	0.6
LOS A B C B C A	LOS	A	В		Α	В		С	В			С	Α

	•	<b>→</b>	•	•	<b>←</b>	•	4	<b>†</b>	<i>&gt;</i>	<b>\</b>	ļ	4
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		15.4			17.8			18.5			13.8	
Approach LOS		В			В			В			В	
Intersection Summary												
Area Type:	Other											
Cycle Length: 70												
Actuated Cycle Length: 49	9.4											
Natural Cycle: 70												
Control Type: Actuated-Ur	ncoordinated											
Maximum v/c Ratio: 0.69												
Intersection Signal Delay:	16.7			In	tersection	ı LOS: B						
Intersection Capacity Utiliz	zation 48.2%			IC	CU Level	of Service	Α					
Analysis Period (min) 15												
Splits and Phases: 4: Co	orey Road &	Malahar	Road									
Spins and Fridaces. 4. Co	orcy Rodu &	Ividiabai	itoau	1.4				- 1				
√ø1 →ø2				1 V g	4				ø8			
8 s 22 s				20 s				20 s				

Intersection												
Int Delay, s/veh	1.2											
j												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	3	613	2	27	923	7	10	1	21	1	3	8
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	· -	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	4	4	4	4	4	4	0	0	5	0	0	0
Mvmt Flow	3	666	2	29	1003	8	11	1	23	1	3	9
Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	1011	0	0	668	0	0	1746	1744	667	1752	1741	1007
Stage 1	-	-	-	-	-	-	674		-	1066	1066	-
Stage 2	-	-	-	-	-	-	1072	1070	-	686	675	-
Critical Hdwy	4.14	-	-	4.14	-	-	7.1	6.5	6.25	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.236	-	-	2.236	-	-	3.5	4	3.345	3.5	4	3.3
Pot Cap-1 Maneuver	678	-	-	912	-	-	68	87	454	68	88	295
Stage 1	-	-	-	-	-	-	448	457	-	271	301	-
Stage 2	-	-	-	-	-	-	269	300	-	441	456	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	678	-	-	912	-	-	60	80	454	60	81	295
Mov Cap-2 Maneuver	-	-	-	-	-	-	60	80	-	60	81	-
Stage 1	-	-	-	-	-	-	445	454	-	269	279	-
Stage 2	-	-	-	-	-	-	239	278	-	415	453	-
Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			0.3			38.4			31.7		
HCM LOS	<b></b>			0.0			E			D		
							_					
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR WBL	WBT	WBR S	SBLn1					
Capacity (veh/h)	142	678	-	- 912	-	-	148					
HCM Lane V/C Ratio	0.245		-	- 0.032	-	-	0.088					
HCM Control Delay (s)	38.4	10.3	0	- 9.1	0	-	31.7					
HCM Lane LOS	E	В	A	- A	A	-	D					
HCM 95th %tile Q(veh)	0.9	0	-	- 0.1	-	-	0.3					

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Lane Group	EBL2	EBL	EBR	SBL	SBR	SEL	SET	SER	NWL	NWT	NWR	
Lane Configurations	ሻ		7				<b>^</b>	7	ሻ	<b>^</b>	7	
Volume (vph)	413	0	206	0	0	0	968	665	341	70	631	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	
Grade (%)		0%		0%			0%			0%		
Storage Length (ft)		0	100	0	0	0		185	570		0	
Storage Lanes		1	1	0	0	0		1	1		1	
Taper Length (ft)		25		25		25			25			
Satd. Flow (prot)	1736	0	1553	0	0	0	3374	1509	1687	1776	1509	
Flt Permitted	0.950								0.129			
Satd. Flow (perm)	1736	0	1553	0	0	0	3374	1475	229	1776	1509	
Right Turn on Red			Yes					Yes			Yes	
Satd. Flow (RTOR)			390					668			686	
Link Speed (mph)		30		30			45			45		
Link Distance (ft)		3209		245			551			747		
Travel Time (s)		72.9		5.6			8.3			11.3		
Confl. Peds. (#/hr)								2				
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	
Heavy Vehicles (%)	4%	0%	4%	0%	0%	0%	7%	7%	7%	7%	7%	
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	
Parking (#/hr)												
Mid-Block Traffic (%)		0%		0%			0%			0%		
Shared Lane Traffic (%)												
Lane Group Flow (vph)	449	0	224	0	0	0	1052	723	371	76	686	
Turn Type	Prot		Prot				NA	Perm	D.P+P	NA	custom	
Protected Phases	4		4				2		1	21	Free	
Permitted Phases			4					2	2			
Detector Phase	4		4				2	2	1	21		
Switch Phase												
Minimum Initial (s)	10.0		10.0				15.0	15.0	10.0			
Minimum Split (s)	21.5		21.5				23.0	23.0	15.5			
Total Split (s)	30.1		30.1				37.9	37.9	22.0			
Total Split (%)	33.4%		33.4%				42.1%	42.1%	24.4%			
Yellow Time (s)	4.0		4.0				5.0	5.0	4.0			
All-Red Time (s)	1.5		1.5				2.0	2.0	1.5			
Lost Time Adjust (s)	0.0		0.0				0.0	0.0	0.0			
Total Lost Time (s)	5.5		5.5				7.0	7.0	5.5			
Lead/Lag							Lag	Lag	Lead			
Lead-Lag Optimize?							Yes	Yes	Yes			
Recall Mode	None		None				Min	Min	None			
Act Effct Green (s)	24.5		24.5				30.9	30.9	48.9	52.9	89.9	
Actuated g/C Ratio	0.27		0.27				0.34	0.34	0.54	0.59	1.00	
v/c Ratio	0.95		0.32				0.91	0.77	0.95	0.07	0.45	
Control Delay	64.7		1.2				40.8	9.3	59.0	8.3	1.0	
Queue Delay	0.0		0.0				0.0	0.0	0.0	0.0	0.0	
Total Delay	64.7		1.2				40.8	9.3	59.0	8.3	1.0	
LOS	Е		Α				D	Α	Ē	А	A	

	<b>&gt;</b>	϶	74	Į,	1	•	×	4	*	×	•	
Lane Group	EBL2	EBL	EBR	SBL	SBR	SEL	SET	SER	NWL	NWT	NWR	
Approach Delay							28.0			20.5		
Approach LOS							С			С		
Intersection Summary												
Area Type:	ther											
Cycle Length: 90												
Actuated Cycle Length: 89.9												
Natural Cycle: 90												
Control Type: Actuated-Unco	ordinated											
Maximum v/c Ratio: 0.95												
Intersection Signal Delay: 28.	.6			Int	tersection	LOS: C						
Intersection Capacity Utilizati	on 82.3%			IC	U Level c	of Service	E					
Analysis Period (min) 15												
Splits and Phases: 6: US 1	& Malaba	r Road										
<b>★</b> <sub>ø1</sub>	1	พ2					Ι.	<b>2</b> ø4				
22 s	37.9	s -					30	).1s				

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Arterial Level of Service 2025 PM Build
3/13/2015

## Arterial Level of Service: EB Malabar Road

Caran Charan	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
Weber Road	II	42	98.7	9.0	107.7	1.14	38.1	А
Corey Road		55	64.9	15.7	80.6	0.99	44.3	Α
US 1	lì	35	169.9	1.2	171.1	1.65	34.8	В
Total	ll l		333.5	25.9	359.4	3.78	37.9	A

## Arterial Level of Service: WB Malabar Road

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
Corey Road	II	40	149.9	18.3	168.2	1.65	35.4	А
Weber Road	II	55	64.9	7.5	72.4	0.99	49.3	А
Total	II		214.8	25.8	240.6	2.64	39.6	А

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Synchro 8 Report
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Intersection										
Int Delay, s/veh	1									
in Dolay, 3/ voil	1									
Movement	EBL	EBT				WBT	WBR		SBL	SBR
Vol, veh/h	130	1540				1042	13		<u> 6</u>	71
Conflicting Peds, #/hr	0	1340				1042	2		0	0
Sign Control	Free	Free				Free	Free		Stop	Stop
RT Channelized	-	None				-	None		- -	None
Storage Length	200	-				_	160		0	0
Veh in Median Storage, #	-	0				0	-		1	-
Grade, %	-	0				0	-		0	-
Peak Hour Factor	92	92				92	92		92	92
Heavy Vehicles, %	4	4				4	4		0	5
Mvmt Flow	141	1674				1133	14		7	77
Major/Minor	Major1					Major2		Mi	nor2	
Conflicting Flow All	1133	0				iviajoi z	0		2253	566
Stage 1	1133	-				-	-		1133	500
Stage 2	_	_				_	_		1120	_
Critical Hdwy	4.18	_				-	_		6.8	7
Critical Hdwy Stg 1	-	-				-	-		5.8	-
Critical Hdwy Stg 2	-	_				-	-		5.8	-
Follow-up Hdwy	2.24	-				-	-		3.5	3.35
Pot Cap-1 Maneuver	601	-				-	-		36	460
Stage 1	-	-				-	-		273	-
Stage 2	-	-				-	-		278	-
Platoon blocked, %		-				-	-			
Mov Cap-1 Maneuver	601	-				-	-		28	460
Mov Cap-2 Maneuver	-	-				-	-		122	-
Stage 1	-	-				-	-		273	-
Stage 2	-	-				-	-		213	-
Approach	EB					WB			SB	
HCM Control Delay, s	1					0			16.1	
HCM LOS	·					J			C	
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR S	SRI n1	SRI n2				
Capacity (veh/h)	601	LDI -		VVDIX C	122					
HCM Lane V/C Ratio	0.235	-	-			0.168				
HCM Control Delay (s)	12.8	-	-	-	36.2					
HCM Lane LOS	12.0 B	-	-		30.2 E					
HCM 95th %tile Q(veh)	0.9	-	-	-	0.2					
HOW FULL FOUND (VEII)	0.7	-	-	-	U.Z	0.0				

	-	•	•	•	4	~
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	<u>↑</u>	Į.	NDL	<b>↑</b> ↑	NDL	TVDIC
Volume (vph)	1267	315	63	869	384	98
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	1700	1700	12	1700	1700
Grade (%)	0%	12	12	0%	0%	12
Storage Length (ft)	0 70	250	255	0 70	250	0
Storage Lanes		250	255		250	1
Taper Length (ft)			25		25	ı
Satd. Flow (prot)	3471	1553	1736	3471	1770	1615
Flt Permitted	3471	1000	0.137	3471	0.950	1010
	3471	1553	250	3471	1770	1615
Satd. Flow (perm)	3471		250	34/1	1//0	
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	45	342			- 20	107
Link Speed (mph)	45			55	30	
Link Distance (ft)	2095			5235	1845	
Travel Time (s)	31.7			64.9	41.9	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	4%	4%	4%	2%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	1377	342	68	945	417	107
Turn Type	NA	Perm	pm+pt	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4	8			2
Detector Phase	4	4	3	8	2	2
Switch Phase	т		3	U		
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	8.0	20.0	20.0	20.0
	30.0	30.0	8.0	38.0	22.0	20.0
Total Split (s)						
Total Split (%)	50.0%	50.0%	13.3%	63.3%	36.7%	36.7%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes			
Recall Mode	None	None	None	None	Min	Min
Act Effct Green (s)	25.3	25.3	29.6	29.6	16.0	16.0
Actuated g/C Ratio	0.47	0.47	0.55	0.55	0.30	0.30
v/c Ratio	0.84	0.38	0.27	0.49	0.79	0.19
Control Delay	20.9	2.9	8.7	8.6	32.1	5.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.9	2.9	8.7	8.6	32.1	5.1
LOS	20.7 C	Α. Α	Α	Α	C	Α
LU3	U	А	А	А	C	А

	<b>→</b>	•	•	<b>←</b>	4	~
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Approach Delay	17.3			8.6	26.5	
Approach LOS	В			Α	С	
Intersection Summary						
Area Type:	Other					
Cycle Length: 60						
Actuated Cycle Length:	53.8					
Natural Cycle: 60						
Control Type: Actuated	-Uncoordinated					
Maximum v/c Ratio: 0.8	4					
Intersection Signal Dela	ıy: 16.1			In	tersection	LOS: B
Intersection Capacity U	tilization 69.8%			IC	U Level c	f Service C
Analysis Period (min) 1	5					
Splits and Phases: 3:	Weber Road &	Malabar	Road			
<b>√</b> √ø2			<b>√</b>	13	-	4
22 s			8 s		30 s	

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ች	<b>∱</b> ∱		ሻ	<b>↑</b> Ъ		*	f.			4	7
Volume (vph)	62	1214	123	69	842	27	128	16	131	33	11	41
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	295		0	295		0	250		0	0		140
Storage Lanes	1		0	1		0	1		0	0		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1736	3415	0	1736	3454	0	1770	1626	0	0	1832	1615
Flt Permitted	0.203			0.110			0.950				0.964	
Satd. Flow (perm)	371	3415	0	201	3454	0	1770	1626	0	0	1832	1615
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		15			4			142				109
Link Speed (mph)		55			55			30			30	
Link Distance (ft)		5235			900			1424			1334	
Travel Time (s)		64.9			11.2			32.4			30.3	
Confl. Peds. (#/hr)			1	1								
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	2%	11%	0%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	67	1454	0	75	944	0	139	159	0	0	48	45
Turn Type	pm+pt	NA		pm+pt	NA		Split	NA		Split	NA	Perm
Protected Phases	5	2		1	6		. 8	8		4	4	
Permitted Phases	2			6								4
Detector Phase	5	2		1	6		8	8		4	4	4
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	8.0	20.0		8.0	20.0		20.0	20.0		20.0	20.0	20.0
Total Split (s)	10.0	42.0		8.0	40.0		20.0	20.0		20.0	20.0	20.0
Total Split (%)	11.1%	46.7%		8.9%	44.4%		22.2%	22.2%		22.2%	22.2%	22.2%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5		0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0	0.0
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0			4.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	None		None	None		Min	Min		Min	Min	Min
Act Effct Green (s)	42.3	37.8		39.3	36.2		11.2	11.2			7.5	7.5
Actuated g/C Ratio	0.57	0.51		0.53	0.48		0.15	0.15			0.10	0.10
v/c Ratio	0.21	0.84		0.40	0.56		0.53	0.44			0.26	0.17
Control Delay	9.3	23.2		14.6	16.7		38.0	11.5			36.8	1.4
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0			0.0	0.0
Total Delay	9.3	23.2		14.6	16.7		38.0	11.5			36.8	1.4
LOS	А	С		В	В		D	В			D	Α

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		22.6			16.6			23.9			19.7	
Approach LOS		С			В			С			В	
Intersection Summary												
Area Type:	Other											
Cycle Length: 90												
Actuated Cycle Length: 74.	7											
Natural Cycle: 90												
Control Type: Actuated-Und	coordinated											
Maximum v/c Ratio: 0.84												
Intersection Signal Delay: 2	0.5			In	tersection	LOS: C						
Intersection Capacity Utiliza				IC	U Level	of Service	С					
Analysis Period (min) 15												
Splits and Phases: 4: Co	rey Road &	Malahar I	Rnad									
/ A	roj rioda a	- Iviaiabai i	todd			1			-   •	· ~ 0		
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) +						203			HZU S			

Vol. vehith	Intersection													
Vol, veh/h         9         1211         11         18         815         2         3         1         40         3         1           Conflicting Peds, #hr         0	Int Delay, s/veh	1.7												
Vol., veh/h         9         1211         11         18         815         2         3         1         40         3         1           Conflicting Peds, #hr         0														
Conflicting Peds, #/hr 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	Movement	EBL	EBT	EBR	WBL	WBT	WBR		NBL	NBT	NBR	SBL	SBT	SBR
Sign Control         Free RT Channelized         Free None         Free None         Free None         Free None         Stop None         None <th< td=""><td>Vol, veh/h</td><td>9</td><td>1211</td><td>11</td><td>18</td><td>815</td><td>2</td><td></td><td>3</td><td>1</td><td>40</td><td>3</td><td>1</td><td>7</td></th<>	Vol, veh/h	9	1211	11	18	815	2		3	1	40	3	1	7
RT Channelized		0	0	0	0	0	0		0	0	0	0	0	0
Storage Length	Sign Control	Free	Free	Free	Free	Free	Free		Stop	Stop	Stop	Stop	Stop	Stop
Veh in Median Storage, #         -         0         -         -         0         -         0         -         0         -         0         -         0         0         -         0         0         -         0         0         -         0         0         92         93 </td <td>RT Channelized</td> <td>-</td> <td>-</td> <td>None</td> <td>-</td> <td>-</td> <td>None</td> <td></td> <td>-</td> <td>-</td> <td>None</td> <td>-</td> <td>-</td> <td>None</td>	RT Channelized	-	-	None	-	-	None		-	-	None	-	-	None
Grade, %         -         0         -         -         0         -         -         0         -         -         0         -         -         0         -         0         -         0         0         0         0         Peak Hour Factor         92 </td <td>Storage Length</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td></td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td> <td>-</td>	Storage Length	-	-	-	-	-	-		-	-	-	-	-	-
Peak Hour Factor         92	Veh in Median Storage, #	-	0	-	-	0	-		-	0	-	-	0	-
Heavy Vehicles, %	Grade, %													-
Major/Minor   Major   Major   Major   Major   Minor   Minor   Minor   Major   Major   Minor   Minor   Major   Minor   Major   Major   Minor   Minor   Minor   Minor   Major   Minor   Minor   Major   Minor   Minor		92		92		92						92		92
Major/Minor   Major1   Major2   Minor1   Minor2												0	0	0
Conflicting Flow All   888	Mvmt Flow	10	1316	12	20	886	2		3	1	43	3	1	8
Conflicting Flow All   888														
Conflicting Flow All   888	Major/Minor	Major1			Major2			M	inor1			Minor2		
Stage 1			0	0		0	0			2269	1322		2274	887
Stage 2						-								-
Critical Hdwy       4.14       -       4.14       -       7.1       6.5       6.2       7.1       6.5       6.         Critical Hdwy Stg 1       -       -       -       -       -       6.1       5.5       -       6.1       5.5         Critical Hdwy Stg 2       -       -       -       -       6.1       5.5       -       6.1       5.5         Critical Hdwy Stg 2       -       -       -       6.1       5.5       -       6.1       5.5         Critical Hdwy Stg 2       -       -       -       6.1       5.5       -       6.1       5.5         Follow Up Hdwy       2.236       -       2.236       -       3.5       4       3.3       3.5       4       3.         Pol Cap-1 Maneuver       754       -       513       -       29       41       193       28       41       34         Mov Cap-1 Maneuver       754       -       513       -       25       36       193       19       36       34         Mov Cap-2 Maneuver       -       -       -       -       25       36       -       19       36         Stage 1       -<		-	-	-	-	-	-				-			-
Critical Hdwy Stg 1       -       -       -       -       6.1       5.5       -       6.1       5.5         Critical Hdwy Stg 2       -       -       -       -       6.1       5.5       -       6.1       5.5         Follow-up Hdwy       2.236       -       2.236       -       3.5       4       3.3       3.5       4       3.         Pot Cap-1 Maneuver       754       -       -       513       -       29       41       193       28       41       34         Stage 1       -       -       -       -       190       223       -       325       350         Stage 2       -       -       -       -       323       350       -       184       221         Platoon blocked, %       -       <		4.14	-	-	4.14	-	-				6.2			6.2
Critical Hdwy Stg 2         -         -         -         -         6.1         5.5         -         6.1         5.5           Follow-up Hdwy         2.236         -         -         2.236         -         -         3.5         4         3.3         3.5         4         3.           Pot Cap-1 Maneuver         754         -         -         513         -         -         29         41         193         28         41         34           Stage 1         -         -         -         -         190         223         -         325         350           Stage 2         -         -         -         -         -         323         350         -         184         221           Platoon blocked, %         -         -         -         -         -         -         -         -         -         184         221         -		-	-	-	-	-	-		6.1	5.5	-	6.1	5.5	-
Follow-up Hdwy 2.236 2.236 3.5 4 3.3 3.5 4 3.  Pot Cap-1 Maneuver 754 513 - 29 41 193 28 41 34 Stage 1 190 223 - 325 350 Stage 2 323 350 - 184 221  Platoon blocked, % 25 36 193 19 36 34 Mov Cap-1 Maneuver 754 513 25 36 - 19 36 34 Mov Cap-2 Maneuver 25 36 - 19 36 34 Mov Cap-2 Maneuver 180 212 - 308 323 Stage 2 291 323 - 135 210  Approach EB WB NB SB		-	-	-	-	-	-		6.1	5.5	-	6.1	5.5	-
Stage 1         -         -         -         -         190         223         -         325         350           Stage 2         -         -         -         -         -         323         350         -         184         221           Platoon blocked, %         -<	Follow-up Hdwy	2.236	-	-	2.236	-	-		3.5	4	3.3	3.5	4	3.3
Stage 2       -       -       -       -       323       350       -       184       221         Platoon blocked, %       -	Pot Cap-1 Maneuver	754	-	-	513	-	-		29	41	193	28	41	346
Platoon blocked, %	Stage 1	-	-	-	-	-	-		190	223	-	325	350	-
Mov Cap-1 Maneuver         754         -         513         -         25         36         193         19         36         34           Mov Cap-2 Maneuver         -         -         -         -         -         25         36         -         19         36           Stage 1         -         -         -         -         -         180         212         -         308         323           Stage 2         -         -         -         -         -         291         323         -         135         210           Approach         EB         WB         NB         SB           HCM Control Delay, s         0.1         0.3         51.2         91.7           HCM LOS         F         F         F         F           Minor Lane/Major Mvmt         NBLn1         EBL         EBT         EBR         WBL         WBR SBLn1           Capacity (veh/h)         124         754         -         -         513         -         -         53           HCM Lane V/C Ratio         0.386         0.013         -         -         0.038         -         0.226	Stage 2	-	-	-	-	-	-		323	350	-	184	221	-
Mov Cap-2 Maneuver         -         -         -         -         25         36         -         19         36           Stage 1         -         -         -         -         -         180         212         -         308         323           Stage 2         -         -         -         -         -         291         323         -         135         210           Approach         EB         WB         WB         NB         SB           HCM Control Delay, s         0.1         0.3         51.2         91.7           HCM Lane/Major Mvmt         NBLn1         EBL         EBR         WBL         WBT         WBR SBLn1           Capacity (veh/h)         124         754         -         -         53           HCM Lane V/C Ratio         0.386         0.013         -         -         0.226           HCM Control Delay (s)         51.2         9.8         0         -         12.3         0         -         91.7           HCM Lane LOS         F         A         A         -         B         A         -         F	Platoon blocked, %		-	-		-	-							
Stage 1         - </td <td>Mov Cap-1 Maneuver</td> <td>754</td> <td>-</td> <td>-</td> <td>513</td> <td>-</td> <td>-</td> <td></td> <td></td> <td></td> <td>193</td> <td></td> <td></td> <td>346</td>	Mov Cap-1 Maneuver	754	-	-	513	-	-				193			346
Stage 2	Mov Cap-2 Maneuver	-	-	-	-	-	-				-			-
Approach EB WB NB SB  HCM Control Delay, s 0.1 0.3 51.2 91.7  HCM LOS F F F  Minor Lane/Major Mvmt NBLn1 EBL EBT EBR WBL WBT WBR SBLn1  Capacity (veh/h) 124 754 513 53  HCM Lane V/C Ratio 0.386 0.013 0.038 0.226  HCM Control Delay (s) 51.2 9.8 0 - 12.3 0 - 91.7  HCM Lane LOS F A A - B A - F	Stage 1	-	-	-	-	-	-				-			-
HCM Control Delay, s 0.1 0.3 51.2 91.7 HCM LOS F F F  Minor Lane/Major Mvmt NBLn1 EBL EBT EBR WBL WBT WBR SBLn1 Capacity (veh/h) 124 754 513 53 HCM Lane V/C Ratio 0.386 0.013 0.038 0.226 HCM Control Delay (s) 51.2 9.8 0 - 12.3 0 - 91.7 HCM Lane LOS F A A - B A - F	Stage 2	-	-	-	-	-	-		291	323	-	135	210	-
HCM Control Delay, s 0.1 0.3 51.2 91.7 HCM LOS F F F  Minor Lane/Major Mvmt NBLn1 EBL EBT EBR WBL WBT WBR SBLn1 Capacity (veh/h) 124 754 513 53 HCM Lane V/C Ratio 0.386 0.013 0.038 0.226 HCM Control Delay (s) 51.2 9.8 0 - 12.3 0 - 91.7 HCM Lane LOS F A A - B A - F														
HCM Control Delay, s 0.1 0.3 51.2 91.7 HCM LOS F F F  Minor Lane/Major Mvmt NBLn1 EBL EBT EBR WBL WBT WBR SBLn1 Capacity (veh/h) 124 754 513 53 HCM Lane V/C Ratio 0.386 0.013 0.038 0.226 HCM Control Delay (s) 51.2 9.8 0 - 12.3 0 - 91.7 HCM Lane LOS F A A - B A - F	Approach	FB			WB				NB			SB		
HCM LOS         F         F           Minor Lane/Major Mvmt         NBLn1         EBL         EBR         WBL         WBT         WBR SBLn1           Capacity (veh/h)         124         754         -         -         513         -         -         53           HCM Lane V/C Ratio         0.386         0.013         -         -         0.038         -         -         0.226           HCM Control Delay (s)         51.2         9.8         0         -         12.3         0         -         91.7           HCM Lane LOS         F         A         A         -         B         A         -         F														
Minor Lane/Major Mvmt         NBLn1         EBL         EBT         EBR         WBL         WBT         WBR SBLn1           Capacity (veh/h)         124         754         -         -         513         -         -         53           HCM Lane V/C Ratio         0.386         0.013         -         -         0.038         -         -         0.226           HCM Control Delay (s)         51.2         9.8         0         -         12.3         0         -         91.7           HCM Lane LOS         F         A         A         -         B         A         -         F		0.1			0.5									
Capacity (veh/h) 124 754 513 53  HCM Lane V/C Ratio 0.386 0.013 0.038 0.226  HCM Control Delay (s) 51.2 9.8 0 - 12.3 0 - 91.7  HCM Lane LOS F A A - B A - F														
Capacity (veh/h) 124 754 513 53  HCM Lane V/C Ratio 0.386 0.013 0.038 0.226  HCM Control Delay (s) 51.2 9.8 0 - 12.3 0 - 91.7  HCM Lane LOS F A A - B A - F	Minor Lane/Major Mymt	NRI n1	FRI	FRT	FRR WRI	WRT	WRD	SRI n1						
HCM Lane V/C Ratio       0.386 0.013       -       - 0.038       -       - 0.226         HCM Control Delay (s)       51.2 9.8 0       - 12.3 0       - 91.7         HCM Lane LOS       F A A - B A - F							WDI							
HCM Control Delay (s) 51.2 9.8 0 - 12.3 0 - 91.7 HCM Lane LOS F A A - B A - F							-							
HCM Lane LOS F A A - B A - F														
HUM USIN WILL COVAN 16 0 - 101 - 108	HCM 95th %tile Q(veh)	1.6	0	- A	- D	- A	-	0.8						

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Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	ሻሻ	7	ሻሻ	<b>†</b>	<b>†</b> †	7
Volume (vph)	997	311	277	1549	1329	678
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	1700	1700	1300	12	1700	1700
Grade (%)	0%	12	12	0%	0%	12
Storage Length (ft)	350	130	570	070	070	185
Storage Lanes		130	2			100
Taper Length (ft)	1 25	I I	25			I
		1552		227/	2274	1509
Satd. Flow (prot)	3367	1553	3273	3374	3374	1009
Flt Permitted	0.950	1550	0.950	2274	2274	1400
Satd. Flow (perm)	3367	1553	3273	3374	3374	1490
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)		166				15
Link Speed (mph)	30			45	45	
Link Distance (ft)	845			1055	1583	
Travel Time (s)	19.2			16.0	24.0	
Confl. Peds. (#/hr)						2
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	4%	7%	7%	7%	7%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)	070			070	070	
Lane Group Flow (vph)	1084	338	301	1684	1445	737
Turn Type	Prot	Perm	Prot	NA	NA	pm+ov
Protected Phases	4	I CIIII	1	21	2	4
Permitted Phases	4	4		Z I	2	2
	4	4	1	21	2	4
Detector Phase	4	4		2 1	Z	4
Switch Phase	10.0	10.0	10.0		15.0	10.0
Minimum Initial (s)	10.0	10.0	10.0		15.0	10.0
Minimum Split (s)	21.5	21.5	15.5		23.0	21.5
Total Split (s)	44.0	44.0	17.0		59.0	44.0
Total Split (%)	36.7%	36.7%	14.2%		49.2%	36.7%
Yellow Time (s)	4.0	4.0	4.0		5.0	4.0
All-Red Time (s)	1.5	1.5	1.5		2.0	1.5
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5		7.0	5.5
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Recall Mode	None	None	None		Min	None
Act Effct Green (s)	38.5	38.5	11.5	69.0	52.0	92.0
Actuated g/C Ratio	0.32	0.32	0.10	0.58	0.43	0.77
v/c Ratio	1.00	0.55	0.10	0.30	0.43	0.77
Control Delay	69.2	20.4	96.3	27.8	55.0	7.3
3			0.0			0.0
Queue Delay	0.0	0.0		0.0	0.0	
Total Delay	69.2	20.4	96.3	27.8	55.0	7.3
LOS	Е	С	F	С	D	Α

	•	•	4	<b>†</b>	<b>↓</b>	4	
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR	
Approach Delay	57.6			38.2	38.9		
Approach LOS	Е			D	D		
Intersection Summary							
Area Type:	Other						
Cycle Length: 120							
Actuated Cycle Length: 1	120						
Natural Cycle: 120							
Control Type: Actuated-U	<b>Jncoordinated</b>						
Maximum v/c Ratio: 1.00	)						
Intersection Signal Delay	<i>t</i> : 43.4			Int	ersection	LOS: D	
Intersection Capacity Uti	lization 88.5%			IC	U Level o	of Service E	
Analysis Period (min) 15							
Splits and Phases: 6:	US 1 & Malaba	ır Road					
<b>-√1</b> 41	<u>س</u>						<b>₩</b>

Arterial Level of Service 2045 AM Build
3/13/2015

## Arterial Level of Service: EB Malabar Road

One of Classic	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
Weber Road	II	42	98.7	20.9	119.6	1.14	34.3	В
Corey Road	II	55	64.9	23.2	88.1	0.99	40.5	Α
US 1		35	169.9	69.2	239.1	1.65	24.9	С
Total			333.5	113.3	446.8	3.78	30.5	В

## Arterial Level of Service: WB Malabar Road

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
Corey Road	II	40	149.9	16.7	166.6	1.65	35.7	А
Weber Road		55	64.9	8.6	73.5	0.99	48.6	А
Total	II		214.8	25.3	240.1	2.64	39.7	А

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Intersection								
Int Delay, s/veh	2.1							
<b>,</b>								
Movement	EBL	EBT			WBT	WBR	SBL	SBR
Vol, veh/h	130	1540			1568	14	6	142
Conflicting Peds, #/hr	0	0			0	2	0	0
Sign Control	Free	Free			Free	Free	Stop	Stop
RT Channelized	-				-	None	-	None
Storage Length	200	-			_	160	0	0
Veh in Median Storage, #		0			0	-	1	-
Grade, %	-	0			0	-	0	-
Peak Hour Factor	92	92			92	92	92	92
Heavy Vehicles, %	4	69			4	4	0	3
Mvmt Flow	141	1674			1704	15	7	154
Major/Minor	Major1				Majora		Minor2	
	Major1	0			Major2	0		0.5.2
Conflicting Flow All	1704	0			-	0	2824	852
Stage 1	-	-			-	-	1704 1120	-
Stage 2	- / 10	-			-	-	6.8	- 4 04
Critical Hdwy Critical Hdwy Stg 1	4.18	-			-	-	5.8	6.96
Critical Hdwy Stg 2	-	-			-	-	5.8	-
Follow-up Hdwy	2.24	-			-	-	3.5	3.33
Pot Cap-1 Maneuver	360	-			-	-	15	3.33
Stage 1	300	-			-	-	135	301
Stage 2	-	-			•	•	278	-
Platoon blocked, %	-	-			-	-	2/8	-
Mov Cap-1 Maneuver	360	-			-	-	9	301
Mov Cap-2 Maneuver	300	-			-	-	73	301
Stage 1	-	_			Ī	_	135	-
Stage 2	-	-			-	-	169	-
Jiago Z	-						107	•
Approach	EB				WB		SB	
HCM Control Delay, s	1.7				0		30.1	
HCM LOS							D	
Minor Lane/Major Mvmt	EBL	EBT	WBT	WBR SBLn1	SBLn2			
Capacity (veh/h)	360	-	-	- 73	301			
HCM Lane V/C Ratio	0.393	-	-	- 0.089				
HCM Control Delay (s)	21.3	-	-	- 59.1	28.9			
HCM Lane LOS	С	-	-	- F	D			
HCM 95th %tile Q(veh)	1.8	-	-	- 0.3	2.7			
( - /								

	-	•	•	←	4	~
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	<b>^</b>	T T	**************************************	<b>↑</b> ↑	TVDE	TVDIC
Volume (vph)	810	255	87	1312	234	39
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	1700	1700	1700	1700	1700	1700
Grade (%)	0%	12	12	0%	0%	12
Storage Length (ft)	070	250	255	0 70	250	0
Storage Lanes		230	255		230	1
Taper Length (ft)		ı	25		25	ı
Satd. Flow (prot)	3471	1553	1736	3471	1787	1615
Flt Permitted	J471	1333	0.198	J4/ I	0.950	1013
Satd. Flow (perm)	3471	1553	362	3471	1787	1615
Right Turn on Red	3471	Yes	302	J4/ I	1/0/	Yes
- C						
Satd. Flow (RTOR)	4.5	277		ГГ	20	42
Link Speed (mph)	45			55	30	
Link Distance (ft)	2095			5235	1845	
Travel Time (s)	31.7			64.9	41.9	
Confl. Peds. (#/hr)						
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	4%	4%	4%	1%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	880	277	95	1426	254	42
Turn Type	NA	Perm	pm+pt	NA	Prot	Perm
Protected Phases	4		3	8	2	
Permitted Phases		4	8			2
Detector Phase	4	4	3	8	2	2
Switch Phase						
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0
Minimum Split (s)	20.0	20.0	8.0	20.0	20.0	20.0
Total Split (s)	22.0	22.0	8.0	30.0	20.0	20.0
Total Split (%)	44.0%	44.0%	16.0%	60.0%	40.0%	40.0%
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5
	0.0		0.0			
Lost Time Adjust (s)		0.0		0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lag	Lag	Lead			
Lead-Lag Optimize?	Yes	Yes	Yes	Niere	N Alice	P. 0.1
Recall Mode	None	None	None	None	Min	Min
Act Effct Green (s)	18.7	18.7	23.0	23.0	11.3	11.3
Actuated g/C Ratio	0.44	0.44	0.54	0.54	0.27	0.27
v/c Ratio	0.58	0.33	0.29	0.76	0.54	0.09
Control Delay	12.6	3.2	7.7	11.6	18.6	5.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.6	3.2	7.7	11.6	18.6	5.5
	12.0	٥.۷	, . ,			0.0

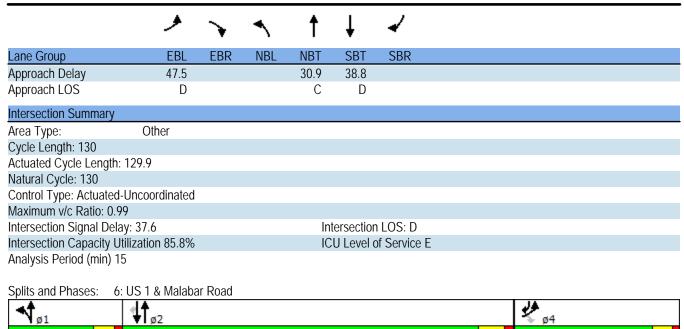
	-	$\rightarrow$	•	←	•	<b>/</b>	
Lane Group	EBT	EBR	WBL	WBT	NBL	NBR	
Approach Delay	10.3			11.3	16.7		
Approach LOS	В			В	В		
Intersection Summary							
Area Type:	Other						
Cycle Length: 50							
Actuated Cycle Length: 4	2.5						
Natural Cycle: 50							
Control Type: Actuated-U	Incoordinated						
Maximum v/c Ratio: 0.76							
Intersection Signal Delay	: 11.5			ln <sup>-</sup>	tersection	LOS: B	
Intersection Capacity Util	ization 55.9%			IC	U Level o	of Service B	
Analysis Period (min) 15							
Calita and Dhagas. 2.1	Nober Dood 0	Malabar	Dood				
Splits and Phases: 3: \	weber Road &	ivialabar	K0aa				
ÿ2				ÿ3		- ø4	
20 s			8	S		22 s	

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	ሻ	<b>∱</b> ∱		ኻ	<b>↑</b> Ъ		ሻ	f)			ર્ન	7
Volume (vph)	29	735	168	105	1133	61	78	14	61	63	26	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%			0%			0%	
Storage Length (ft)	295		0	295		0	250		0	0		140
Storage Lanes	1		0	1		0	1		0	0		1
Taper Length (ft)	25			25			25			25		
Satd. Flow (prot)	1736	3360	0	1736	3443	0	1770	1635	0	0	1835	1615
Flt Permitted	0.145			0.161			0.950				0.966	
Satd. Flow (perm)	265	3360	0	294	3443	0	1770	1635	0	0	1835	1615
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		37			7			66				123
Link Speed (mph)		55			55			30			30	
Link Distance (ft)		5235			900			1424			1334	
Travel Time (s)		64.9			11.2			32.4			30.3	
Confl. Peds. (#/hr)			1	1								
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	4%	4%	4%	4%	4%	2%	11%	0%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Lane Group Flow (vph)	32	982	0	114	1298	0	85	81	0	0	96	54
Turn Type	pm+pt	NA		pm+pt	NA		Split	NA		Split	NA	Perm
Protected Phases	5	2		1	6		. 8	8		. 4	4	
Permitted Phases	2			6								4
Detector Phase	5	2		1	6		8	8		4	4	4
Switch Phase												
Minimum Initial (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Minimum Split (s)	8.0	20.0		8.0	20.0		20.0	20.0		20.0	20.0	20.0
Total Split (s)	8.0	31.0		9.0	32.0		20.0	20.0		20.0	20.0	20.0
Total Split (%)	10.0%	38.8%		11.3%	40.0%		25.0%	25.0%		25.0%	25.0%	25.0%
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5		0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0			0.0	0.0
Total Lost Time (s)	4.0	4.0		4.0	4.0		4.0	4.0			4.0	4.0
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	None		None	None		Min	Min		Min	Min	Min
Act Effct Green (s)	29.0	25.9		31.8	30.0		8.5	8.5			8.7	8.7
Actuated g/C Ratio	0.47	0.42		0.51	0.48		0.14	0.14			0.14	0.14
v/c Ratio	0.15	0.69		0.43	0.78		0.35	0.29			0.37	0.16
Control Delay	10.0	18.9		13.6	20.3		30.3	13.1			30.2	1.1
Queue Delay	0.0	0.0		0.0	0.0		0.0	0.0			0.0	0.0
Total Delay	10.0	18.9		13.6	20.3		30.3	13.1			30.2	1.1
LOS	А	В		В	С		С	В			С	А

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		18.6			19.8			21.9			19.7	
Approach LOS		В			В			С			В	
Intersection Summary												
Area Type:	Other											
Cycle Length: 80												
Actuated Cycle Length: 62.2	)											
Natural Cycle: 80												
Control Type: Actuated-Unc	oordinated											
Maximum v/c Ratio: 0.78												
Intersection Signal Delay: 19	9.5			In	tersection	ı LOS: B						
Intersection Capacity Utilization				IC	U Level	of Service	В					
Analysis Period (min) 15												
Splits and Phases: 4: Cor	ey Road &	Malabar I	Road									
<b>√</b> ø1 → ø2					-   ∜•,	<b>54</b>			<b>★</b> ø8			
9 s 31 s					20 s				20 s			
1 to 1 to 1	·											

•													
Intersection													
Int Delay, s/veh	4												
j													
Movement	EBL	EBT	EBR	WBL	WBT	WBR	N	BL	NBT	NBR	SBL	SBT	SBR
Vol, veh/h	11	820	4	40	1200	13		12	1	22	1	3	8
Conflicting Peds, #/hr	0	0	0	0	0	0		0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	St		Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None		-	-	None	-	-	None
Storage Length	-	-	-	-	-	-		-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-		-	0	-	-	0	-
Grade, %	-	0	-	-	0	-		-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92		92	92	92	92	92	92
Heavy Vehicles, %	4	4	4	4	4	4		0	0	5	0	0	0
Mvmt Flow	12	891	4	43	1304	14		13	1	24	1	3	9
Major/Minor	Major1			Major2			Mino	or1			Minor2		
Conflicting Flow All	1318	0	0	896	0	0	23		2322	893	2328	2318	1311
Stage 1	-	-	-	-	-	-		17	917	-	1398	1398	-
Stage 2	-	-	-	-	-	-			1405	-	930	920	-
Critical Hdwy	4.14	-	-	4.14	-	-		7.1	6.5	6.25	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	(	5.1	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	(	5.1	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.236	-	-	2.236	-	-	;	3.5	4	3.345	3.5	4	3.3
Pot Cap-1 Maneuver	518	-	-	749	-	-		27	38	336	26	38	196
Stage 1	-	-	-	-	-	-		29	354	-	176	209	-
Stage 2	-	-	-	-	-	-	1	75	208	-	323	352	-
Platoon blocked, %		-	-		-	-							
Mov Cap-1 Maneuver	518	-	-	749	-	-		19	28	336	19	28	196
Mov Cap-2 Maneuver	-	-	-	-	-	-		19	28	-	19	28	-
Stage 1	-	-	-	-	-	-		14	338	-	168	164	-
Stage 2	-	-	-	-	-	-	1	29	163	-	285	336	-
Approach	EB			WB				VB			SB		
HCM Control Delay, s	0.2			0.3			203	3.4			80.9		
HCM LOS								F			F		
Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR WBL	WBT	WBR S	SBLn1						
Capacity (veh/h)	48	518	-	- 749	-		60						
HCM Lane V/C Ratio	0.793		-	- 0.058	-	-	0.217						
HCM Control Delay (s)	203.4	12.1	0	- 10.1	0	-	80.9						
HCM Lane LOS	F	В	A	- B	A	-	F						
HCM 95th %tile Q(veh)	3.2	0.1	-	- 0.2	-	-	0.7						
` '													

	۶	•	4	<b>†</b>	<b>↓</b>	✓
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	ሻሻ	7	ሻሻ	**	<b>†</b> †	7
Volume (vph)	525	310	377	1273	1631	893
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Grade (%)	0%	12	12	0%	0%	12
Storage Length (ft)	350	130	570	070	070	185
Storage Lanes	1	130	2			103
Taper Length (ft)	25	'	25			ı
Satd. Flow (prot)	3367	1553	3273	3374	3374	1509
Flt Permitted	0.950	1000	0.950	33/4	33/4	1509
Satd. Flow (perm)	3367	1553	3273	3374	3374	1490
, ,	330 <i>1</i>		3213	33/4	33/4	
Right Turn on Red		Yes				Yes
Satd. Flow (RTOR)	20	220		45	45	13
Link Speed (mph)	30			45	45	
Link Distance (ft)	845			1055	1583	
Travel Time (s)	19.2			16.0	24.0	
Confl. Peds. (#/hr)						2
Confl. Bikes (#/hr)						
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	4%	4%	7%	7%	7%	7%
Bus Blockages (#/hr)	0	0	0	0	0	0
Parking (#/hr)						
Mid-Block Traffic (%)	0%			0%	0%	
Shared Lane Traffic (%)						
Lane Group Flow (vph)	571	337	410	1384	1773	971
Turn Type	Prot	Perm	Prot	NA	NA	pm+ov
Protected Phases	4		1	2 1	2	4
Permitted Phases	т.	4		2 1	2	2
Detector Phase	4	4	1	21	2	4
Switch Phase	4	4		Z I	2	4
	10.0	10.0	10.0		1E 0	10.0
Minimum Initial (s)	10.0	10.0	10.0		15.0	10.0
Minimum Split (s)	21.5	21.5	15.5		23.0	21.5
Total Split (s)	32.1	32.1	22.0		75.9	32.1
Total Split (%)	24.7%	24.7%	16.9%		58.4%	24.7%
Yellow Time (s)	4.0	4.0	4.0		5.0	4.0
All-Red Time (s)	1.5	1.5	1.5		2.0	1.5
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)	5.5	5.5	5.5		7.0	5.5
Lead/Lag			Lead		Lag	
Lead-Lag Optimize?			Yes		Yes	
Recall Mode	None	None	None		Min	None
Act Effct Green (s)	26.5	26.5	16.5	90.9	68.9	96.9
Actuated g/C Ratio	0.20	0.20	0.13	0.70	0.53	0.75
v/c Ratio	0.83	0.69	0.99	0.59	0.99	0.87
Control Delay	61.2	24.3	97.4	11.2	49.6	19.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	61.2	24.3	97.4	11.2	49.6	19.0
LOS	E	С	F	В	D	В



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Arterial Level of Service 2045 PM Build
3/13/2015

## Arterial Level of Service: EB Malabar Road

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
Weber Road	II	42	98.7	12.6	111.3	1.14	36.9	А
Corey Road	II	55	64.9	18.9	83.8	0.99	42.6	Α
US 1		35	169.9	61.2	231.1	1.65	25.8	С
Total	ll		333.5	92 7	426.2	3.78	32.0	B

## Arterial Level of Service: WB Malabar Road

	Arterial	Flow	Running	Signal	Travel	Dist	Arterial	Arterial
Cross Street	Class	Speed	Time	Delay	Time (s)	(mi)	Speed	LOS
Corey Road	II	40	149.9	20.3	170.2	1.65	35.0	В
Weber Road		55	64.9	11.6	76.5	0.99	46.7	А
Total	II		214.8	31.9	246.7	2.64	38.6	А

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Synchro 8 Report
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# Appendix P

Queue Length Calculations - Design Year 2045 Build Conditions

SR 514 Design Traffic Technical Memorandum

Recommended Queue Length of Turn Lanes for Signalized Intersections- Design Year 2045

Recommended Queue Length of Turn Lanes for Signatized Intersections- Design Tear 2045									
			Total	Number	Per			Calc'd	Rec'd
Turning	Turning	G/C	Cycle	of	Lane	Percent	Adjust.	Queue	Queue
Movement	Volume	Ratio	Length	Turn	Volume	Trucks	Factor	Length	Length
	(Veh/Hr)		(Sec)	Lanes	(VPHPL)			(ft)	(ft)
			Al	M Design Ho	ur				
INTERS	ECTION		SR 514 & V	Veber Road					
EB Right	315	0.52	90	1	315	4.0%	1.25	123	125
WB Left	63	0.60	90	1	63	4.0%	1.25	20	100
NB Left	384	0.29	90	1	384	2.0%	1.25	217	225
INTERS	INTERSECTION SR 514 & Corey Road								
EB Left	62	0.55	110	1	62	4.0%	1.25	28	100
WB Left	69	0.59	110	1	69	4.0%	1.25	28	100
NB Left	128	0.15	110	1	128	2.0%	1.25	106	125
SB Right	41	0.10	110	1	41	0.0%	1.25	35	100
INTERS	INTERSECTION SR 514 & US 1								
EB Left	997	0.32	120	2	499	4.0%	1.25	367	375
NB Left	277	0.10	120	2	139	7.0%	1.25	139	150
SB Right	678	0.77	120	1	678	7.0%	1.25	174	175

Notes:

T = percent of heavy vehicles

L = (A) (DHV) (1-G/C) (T+1) (F) / (3600/C) / (N)

where:

L = Queue length

F = adjustment factor (1.25 to 2)

DHV = design hour volume, in vph

C = cycle length N = # of lanes

G/C = ratio of green time to cycle length

A = Assumed 25 feet for automobile

<sup>1.</sup> Queue Lengths are calculated based on the following formula:

<sup>2.</sup> Recommended Queue lengths are shown in yellow shade and bold letters.

 $<sup>3.\</sup> A\ minimum\ Queue\ length\ of\ 100\ feet\ is\ assumed\ as\ the\ recommended\ length\ for\ calculated\ lengths\ of\ less\ than\ 100\ feet.$ 

SR 514 Design Traffic Technical Memorandum

Recommended Queue Length of Turn Lanes for Signalized Intersections- Design Year 2045

			Total	Number	Per		Ü	Calc'd	Rec'd
Turning	Turning	G/C	Cycle	of	Lane	Percent	Adjust.	Queue	Queue
Movement	Volume	Ratio	Length	Turn	Volume	Trucks	Factor	Length	Length
	(Veh/Hr)		(Sec)	Lanes	(VPHPL)			(ft)	(ft)
			Pl	M Design Ho	ur				
INTERSI	ECTION:		SR 514 & V	Veber Road					
EB Right	255	0.44	50	1	255	4.0%	1.25	64	100
WB Left	87	0.54	50	1	87	4.0%	1.25	18	100
NB Left	234	0.27	50	1	234	1.0%	1.25	75	100
INTERSI	INTERSECTION: SR 514 & Corey Road								
EB Left	29	0.47	80	1	29	4.0%	1.25	11	100
WB Left	105	0.51	80	1	105	4.0%	1.25	37	100
NB Left	78	0.14	80	1	78	2.0%	1.25	48	100
SB Right	50	0.14	80	1	50	0.0%	1.25	30	100
INTERSECTION: SR 514 & US 1									
EB Left	525	0.20	130	2	263	4.0%	1.25	246	250
NB Left	377	0.13	130	2	189	7.0%	1.25	198	200
SB Right	893	0.75	130	1	893	7.0%	1.25	270	225

Notes:

T = percent of heavy vehicles

L = (A) (DHV) (1-G/C) (T+1) (F) / (3600/C) / (N)

where:

L = Queue length

F = adjustment factor (1.25 to 2)

DHV = design hour volume, in vph

C = cycle length
N = # of lanes

G/C = ratio of green time to cycle length

A = Assumed 25 feet for automobile

 $<sup>1.\</sup> Queue\ Lengths\ are\ calculated\ based\ on\ the\ following\ formula:$ 

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